New Orleans Medical and Surgical Journal.

VOL. LXVIII. AUGUST, 1915. No. 2

Original Articles

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. A complimentary edition of one hundred reprints of his article will be furnished each contributor should he so desire. Covers for same, or any number of reprints, may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

HISTORY OF CATARACT EXTRACTIONS.

By T. J. DIMITRY, M. D.,

Professor of Ophthalmology, New Orleans Post-Graduate Medical School.
New Orleans, La.

It has been very interesting to me to become informed of the history of cataract extraction. In this study the claims to originality by many recent day surgeons are readily disproven. The numerous modifications by these gentlemen are deserving of little consideration, for others had suggested or practically carried out the same technic years ago.

It is not my desire to enter into the historical discussion previous to the time of Daviel, yet a word will not be amiss, for one can realize that the start was made at a very early period. The depression of the cataract by means of the needle is one of the oldest operations of ocular surgery. It is doubtful if at the period of Hippocrates, fourteen hundred years before the Christian era, anything was known of cataract, for there appears but one vague passage in his writings, possibly alluding to this condition, thus: **Sometimes the pupil gets distorted, and takes on quickly the color of the sea, instead of black. When this happens, there is no remedy.**

In the writings of Celsus, in the first century, there is a lengthy description of the depression operation, and he had obtained his data from the Roman writers who had compiled remnants of writings spared from the two great fires which destroyed the library of Alexander in the year forty-six before our era.

Egypt is possibly the birthplace of the first cataract operation, and the glory is to the Greek School of Hippocrates. Galen, one hundred and fifty years before the first century, and Pliny, writing in the first century, leave us without a doubt that surgeons tried to remove the cataract by discission or depression. In their description, there is no mention of the removal of the hardened or ripened cataract. Paul Engine, in the seventh century, offers an excellent description to which, until this day, little can be added. Albancasis, who lived in Cordue, reproduces the work of Paul Engine. Rhazes speaks of the suction operation for the soft cataract, and this is confirmed by Hirschberg, for he has found in the designs of the manuscripts of that time, hollow needles that served the Arab oculists to suck out the soft masses of the cataract. From this time there is a lapse till 1363, for again is mentioned the technic of Galen and Paul Engine, by Guy de Chauliàc. Ambroise Paré and one of his students, Guillemeau, writing in the sixteenth century, show the incision operation again used by the Arabs, for they had abandoned the suction operation, considering it impracticable.

A review of the above facts shows that no progress was made since the time of Galen, one hundred and fifty years before the Christian era. At the end of the seventeenth century we hear of Daviel, who made definite rules and extracted the hard cataract —this, in the year 1750. Daviel's technic did not occur suddenly, but resulted from certain earlier discoveries. Keppler, writing in 1914, made known the role of the crystalline lens. The dissections of Brusseau, who read a paper before the Academy of Sciences of France, proclaimed the cataract an opaque crystalline lens. The extraction of Daviel, of 1750, had been accidentally preceded by St. Yves in 1707, and Poufour du Petit in 1708. The latter removed a lens that had been dislocated into the anterior chamber. Mary, before Daviel, proposed clearly to take out in a systematic way the cataract; and it is this idea that Daviel took up afterwards and put in practice successfully.

We have Ferrier on the cystitome. The extraction of the cataract might never have been possible had discission of the membrane not been known of before. In the year 1745 Daviel, oculist to the king, performed for the first time a premeditated extraction of a hard cataract on the Hermit of Provence. This operation partly succeeded, and thenceforth became the subject of his studies. Five years later we hear of him on a trip to Mannheim to treat the Princess Palatine. During this trip he extracted systematically the opaque lens. He performed the operation a number of times, and the descriptions of his technic are to be found in a letter addressed to Raymon de Vermille, physician to the Princess of Chicoyneau, who was also physician in particular to the king. The letter was dated November 25, 1750, and in 1751 there appeared in Paris a treatise of the first announcement of his procedure. One of his scholars, Thurand, in the early part of the same year, published another treatise, minutely describing his friend's technic. We are convinced from this source that Daviel cut but one-half of the cornea, and never two-thirds. It is possible he made such an incision in the original operation, but only as a trial. I attach the description of Thurand. The patient is sitting, and the surgeon is sitting in front of him. The surgeon, with the finger of the left hand, lowers the inferior lid and leaves the index finger on the conjunctiva, to moderate as much as possible the movement of the eye. The upper lid and head are taken care of by an assistant. The eye thus fixed, he takes a needle, with two fingers and thumb of the right hand, as he would take a pen to write; then, the elbow leaning strongly, he guides the needle near the cornea to the same height as the limbus, pushes it slowly, but not strongly, into the anterior chamber, so as not to wound the iris. In taking out the needle he cuts slowly to one side and then to the other. He desires to make a large opening; the humor escapes, and the assistant wipes it. The eye, once wiped, he takes the scissors, that are curved concave-convex, and used in making it of the exact size desired. These scissors adapt themselves to the spherical curvature of the eye. Half of the cornea is cut, the flap is lifted up with the spatula, and he then introduces a needle into the eye until the capsule of the crystalline lens is opened into the back part of the pupil. Most times the lens comes out of itself. If it does not, pressure is made with the finger, but in a manner to maintain the vitreous and to push out

the lens. As soon as the lens is passed into the anterior chamber, it is easily expulsed on the outside by means of the spatula.

In all the great discoveries we find opposition, and so it is with the cataract extraction. Palluci made claim to the discovery of the extraction in 1751, and laid his claims before the Academy of Medicine. He criticized the three instruments used by Daviel and the manner of the operation. Palluci used but one instrument, and he was the first to use the contra puncture. Daviel hesitated with this contra puncture, but later he adopted it when his friend and scholar, Lafaye, had constructed for that operation a little knife, which was long and very narrow, and could pass for the antecedent of the Græfe knife so extensively used to-day. Lafaye invented an instrument he called the cystitome, or rather gave that name to an instrument that would open up the capsule of the lens. The cystitome of to-day is of an entirely different shape, and was constructed by Rivaud in the beginning of the nineteenth century. The different cuts, as made by the surgeons at different times, are filled with interest, but space does not permit of these diagrams. They are beautifully reproduced in the Encyclopedia of Ophthalmology. Daviel used a knife that was afterwards modified by Yæger. The Græfe knife is the one of Tenon, and of Lafaye slightly transformed. In 1755 Béranger had constructed a knife which is nothing more than the one known under the name of Beer's. It was Béranger who abandoned the digital fixation of the eye for the hook fixation. Lorrente, at the end of the eighteenth century, used to wash the anterior chamber after the operation, and in 1779 Sonnezet evacuated the lens with an Anel's syringe. The extraction spread throughout Europe, and was accepted with great favor. In the nineteenth century the operation met with a great setback in France, due to the high authority of Scarpa and Dupuytren. They seemed to believe in the decompression operation, and declared the operation to be satisfactory in appearance and immediate results. Dupuytren was the first operator to advise placing the patient in the reclining position, and who first practiced it. In Germany and England the influence of Scarpa and Dupuytren had little effect, and they remained faithful to the extraction of Daviel.

In 1830 we have the new school of ophthalmology. We have

Desmare and Sichel confirming the idea of Beer, who systematized and affirmed the technic of the extraction. We find the flap extraction meeting with reversal in favor of linear extraction. This operation, except the extraction of the unripe lens, is not practiced by any one to-day, and its technic, with iridectomy, existed for only twenty years or thereabouts. The extraction of Daviel counted then only a few followers. We hear of Gibson, 1811, and Traver, 1814, in the linear extraction. Desmare, 1815, tried to extract the hard lens by the linear method, but, in seeking to break up the lens against the posterior surface of the cornea, considered it brutal and liable to serious accident. Græfe continued the iridectomy with the linear extraction.

For quite a time we hear of the surgeons making their incision in the cornea. Following this, we then had the scoop extraction of Græfe. He operated with a straight knife, which is to-day the most used of the cataract knives. And we again have the incision through the periphery of the anterior chamber; the point penetrating in the opaque portion of the limbus comes out on the other side at a similar point. This incision contended with a greater possibility of a loss of vitreous and of cutting the iris. Mooren advised the use of the fifteen days' preliminary iridectomy to the extraction of the lens. DeWecker, in his communication in 1875 before the Academy of Science, shows clearly the return to the method of Daviel.

The modern literature is filled with the extraction of the lens in its capsule.

SOME EXPERIENCES WITH DR. KARL VON RUCK'S WATERY EXTRACT OF TUBERCLE BACILLI AND VACCIN FOR TUBERCULOSIS

In Pulmonary Tuberculosis, Infantile Marasmus, Tuberculous Rheumatism and in "Hemorrhagic Conditions."

By B. F. TERRY, M. D., Houston, Texas.

My acquaintance with Dr. Karl von Ruck's tuberculosis remedies commenced in 1901, and since then I have treated a large number of tuberculous cases, at first with the watery extract of tubercle bacilli and, since the spring of 1912, with his vaccin. My experience with the watery extract extends over forty-seven early and thirty-five moderately advanced cases of pulmonary tubercu-

losis, all of which were apparently cured, and one far advanced case, in which death occurred. With the vaccin I have, up to November, 1914, treated 451 early and twenty-seven moderately advanced cases, with apparently curative results in all except six cases of the latter class, the patients being still under treatment at this time.

Aside from the cases of pulmonary tuberculosis, I have employed both preparations with excellent results in numerous cases of glandular and of surgical tuberculosis, as well as in one case of laryngeal tuberculosis. I shall give a few cases illustrating my experiences in treating pulmonary tuberculosis in adults and occult tuberculosis in infants, with both preparations, all of which cases go to show the favorable influence of specific treatment in tuberculosis, provided a suitable remedy is employed.

CASE RESULTS WITH WATERY EXTRACT.

Case 1. Treated in September, October and November, 1911. Pulmonary tuberculosis. Female, age 35. Had been in declining health for six years and a sufferer from asthma since her fourteenth year of age. At the beginning of treatment the temperature ranged from 99.5° to 101° F.; pulse, 96; weight, 109. There was moderate cough and expectoration; both lungs were involved; the patient was profoundly anemic.

This patient was treated with watery extract for three months, with immediate improvement. At the close of treatment the temperature was normal; pulse, 76; cough and expectoration had ceased. The patient gained nine pounds during her treatment, and her asthma left her after the first dose.

This patient has borne three children since treatment, has had no return of her asthma, and now weighs 138 pounds. She has enjoyed good health since that time; has not a gray hair on her head, does not look to be over 35 years of age, and is remarkably vigorous and well preserved for a woman of 48 years.

Case 2. Treated in October, November and December, 1901. Tuberculous marasmus in a male infant seven months old, born of a tuberculous mother. Weight at birth, 12 pounds. Began to decline from birth, and emaciation became extreme. Weight, only 6½ pounds. Digestive disturbances a prominent feature; copious mucous discharges; skin dry; mucous membranes pale; general anemia and a gradual wasting had been present for some time. The temperature ranged from 100° to 102° F.; the pulse was 140; the respiration 45. Every effort with medicines having failed, I decided to abandon drugs and to try the watery extract, although I had no guide for the treatment of so young an infant. The baby showed improvement from the first dose, and there was a rapid amelioration

in all of his symptoms. At the end of three months he was practically well. Skin soft; bowels normal; temperature, 98.3° F.; pulse, 100; appetite good; digestion good, cheeks rosy. The weight was 21 pounds—a gain of 14½ pounds, or of over 200 per cent. in the course of three months.

These two cases are given as illustrating my earliest experience in the use of the watery extract. The results were brilliant, and are given only as examples of the efficiency of the watery extract thirteen years ago. Like results have been accomplished all along since, and, when rightly used, the watery extract will accomplish great and lasting good. Case 1, as well as a number of other cases treated in 1901, were tried with the vaccin in 1913 and 1914, and they failed to react to it, showing that the results had been permanent. All cases treated with the watery extract have improved from year to year, and the further they go the better they are. They have been sick less than other people; have gradually gained in weight; have increased in vigor; suffered little or none from "la grippe," and are to-day living examples of the efficacy of the watery extract of tubercle bacilli. The second case is given in order to prove the efficiency of the remedy in early or infantile cases, and is probably the first case of immunization of an infant. "Necessity is the mother of invention." Driven to the last ditch in the treatment of this baby, and with death staring me in the face as the only probable outcome, I resorted to the watery extract, with such results as to astonish me and which were calculated to open a new and a wider vision of the possibilities and probabilities of this remedy.

CASES TREATED WITH VACCIN.

Case 195. Girl, six months old. Bottle-fed, as mother died a few days after her birth. Weight, 14 pounds; appetite poor; digestion very poor; profoundly anemic; actions from bowels mostly mucous; skin dry and harsh; appearance waxy. The baby cried and fretted almost constantly.

I gave this baby four doses of the old vaccin in amounts of 1/25, 1/16, 1/12, and 1/10 cubic centimeters, at intervals of five days; this was in August and September, 1913. The little patient showed improvement within twelve hours after the first dose was given. No medicines were administered after the vaccin treatment was begun. Soon sleep became sound and normal; appetite and digestion improved; the skin softened, becoming clear and of healthy appearance. The baby gained six pounds in three months. Within five months she had become one of the finest and healthiest babies in

town. Now, at the end of fifteen months, she still remains well and vigorous and enjoys perfect health. She has had no sickness since being treated.

Case 21. Man, age 41 years. Weight, 125 pounds; height, 5 feet 10 inches. Respiration, 32; pulse, 96; temperature, 99° to 100° F. Occupation, farmer. This patient had been in a "decline" for ten or twelve years, and for the last two years he had been unable to do any work. He was nervous; liver and bowels sluggish; appetite and digestion poor; heart weak, and irritable; sleep poor; kidney action excessive. The patient complained of extreme weakness.

I gave this man ten doses in all, at intervals of from five to seven days. Some of his reactions were rather violent, but I found that he was much improved after the reactions were over. He showed great and rapid improvement from the first; became free from fever within two weeks, and has had none since. The improvement was so rapid that at the end of two weeks he began to do light work. He gained ten pounds in the first two months, and at the end of that time he began to do regular farm work. Sleep had become refreshing; appetite and digestion good; the strength rapidly increased. Pulse was 76, of good volume; all nervousness had disappeared. He was apparently cured.

At the end of fifteen months' treatment this man weighs 150 pounds; he has made a crop and gathered it during the last fall; he is sturdy and vigorous, and has not been sick since I treated him. He is working every day—during the time of writing, at thrashing, walking two hours night and morning to his work. He is in better health now than for fifteen years before.

These are only two cases out of over five hundred treated with vaccin in the last seventeen months, and they are given as illustrating the wonderful curative effects of the vaccin in widely different conditions and at widely differing age periods. I have observed like results in infants, children, adolescents, adults, and in old people, ranging in age from two weeks to eighty-four years.

While my experience in the treatment of pulmonary and other forms of manifest tuberculosis with these two preparations has been extensive and crowned with very happy and gratifying results, none of them have been as remarkable to me as are those which I obtained in conditions apparently entirely foreign to tuberculosis, in which the question of the existence of this affection did not at first even occur to me. Administering the watery extract, years ago, in a variety of cases in which the ordinary drug

treatment had persistently failed me, more for the sake of doing something for my patients than with any definite therapeutic purpose, I was astonished and, I must admit, at first perplexed at the striking and decided improvement manifested by many of my patients. This experience repeated itself so often that ultimately it became the rule with me to resort to the watery extract whenever I was at the end of my resources, and I was usually successful in accomplishing a favorable result. The introduction of the vaccin in 1912 changed matters only in so far as I now obtained like results much more rapidly and promptly.

Being in the midst of a busy general practice, an old-time country physician with no laboratory facilities, and with but little time for study, I was naturally puzzled at these observations, especially as I did not then know of the extreme frequency of latent and inactive tuberculosis and of the many and varied troubles and symptoms which may arise in some way or another through the action of the tubercle bacillus. Two conditions confronted me with particular persistence, in which disgust with the uselessness of the customary methods of treatment and desperation in the urgent necessity of doing something for my patients forced me to the employment of the watery extract. These conditions are "rheumatism" in all its clinical manifestations, and the hemorrhagic condition, which is always terrifying, and becomes peculiarly trying and distressing after confinement. When I commenced to treat rheumatism with the watery extract I knew nothing of the work of the French authors, especially of Professor Poncet, of Lyons, who established the clinical entity of the so-called tuberculous rheumatism. By purely clinical observation, and mainly in confirmation of the old saying that "cures demonstrate the nature of diseases" (which, put into practice, may be called the therapeutic experiment), I arrived at the conclusion that chronic rheumatism always depends upon an underlying tuberculosis, which may be latent or active, and that the rheumatic manifestations can be lastingly removed by the efficient treatment of the tuberculosis.

The reason for my success with the watery extract in hemorrhagic conditions was less evident; but here, also, I was forced to assume an occult or latent tuberculosis, which in some way caused a depreciation of the circulatory system and which was remedied,

with satisfactory secondary effects, by specific antituberculosis treatment. My conclusions in this respect were likewise forced on me by practical observations, since early in my experience the watery extract, during the fall and winter of 1901 and 1902, I treated some tuberculous women who were pregnant at the time. These women had always had fearful postpartum hemorrhages in their previous confinements, but in those following their treatment with the watery extract of tubercle bacilli no abnormal loss of blood was experienced, and they all made safe recoveries. On thinking over these results it occurred to me that the watery extract must bring about some change in the blood of "bleeders" by which the tendency to bleeding was corrected, and this idea suggested the presence of an underlying latent tuberculosis as responsible for the tendency to bleeding, at least in some cases. In applying the therapeutic experiment, in many cases with a history of previous postpartums, as well as in patients with metrorrhagia and menorrhagia, and in the excesses of the climacteric, in nose bleed, etc., the method never failed me, and I came to accept this class of patients with perfect confidence that I would be able to overcome the abnormal conditions; and my results invariably justified my faith.

Most of these experiences date many years back, and at that time I concluded that the watery extract of tubercle bacilli was far more than simply a remedy for the treatment of tuberculosis. I believed that it would remedy many and varied conditions for which I knew of no connection or relation with the tubercle bacillus. The researches of recent years have demonstrated the practically universal presence of tuberculous lesions in persons living in civilized countries, and have also shown that the tubercle bacillus may and does give rise to many clinical symptoms which are as variable as they are numerous, but all of which yield to treatment with an appropriate specific remedy.

In the following I shall give a few cases from my case-book, of rheumatism, and of what I have called the "hemorrhagic condition," which will support the conclusions at which I have arrived empirically so many years ago. While I have the highest respect for research and for laboratory investigation, and while I fully realize the immense progress which medicine has made under the impetus of these methods of study, I also contend that empirical

research has its proper place and that the results of careful and exact clinical observations are entitled to consideration.

Case No. 79. Female; age, 58; weight, 105 pounds; respiration, 36; pulse, 96; very much emaciated, as she formerly weighed 160 pounds; very anemic; poor appetite and very poor digestion; bowels have been too active for months; temperature normal. Came to me in April, 1913, to be treated for deformant rheumatism. Joints in hands and fingers, also knee joints, very much enlarged and sore; also feet and toes. The patient was almost helpless, and her condition was pitiable and very grave.

I treated her for five and a half months with the watery extract, with very gradual improvement. Soon, however, her tongue cleared; appetite and digestion became better; the bowels became regular; skin moistened, and complexion cleared; strength increased. The rheumatic pains and soreness gradually became less; weight increased up to 130 pounds, a gain of twenty-five pounds, and the patient was able to take short walks to see her neighbors. She had received no medicines during the treatment.

At the end of her treatment, in September, 1913, she was able to do most of the cooking for her small family and to walk a quarter of a mile to town and then back home. She moved back to the farm in December, 1913, has been able to do her housework, and has enjoyed fairly good health. Of course, she never will be robust, but she is no longer an invalid, and, with reasonable care, there will be years of comfortable life before her.

Case No. 419. Lumbago. Boy, engaged in farm work. Has been complaining of lumbago for a year, and often lost four or five days' work on account of this trouble. After some palliative treatment, during which the attacks returned at times, the father brought the boy to me for examination, in order that I might give him a remedy which would keep the attacks off for good. He was losing too much time at the busy season. Though a comparatively vigorous boy, one could easily see that he had a latent tuberculosis.

I gave him, in all, five doses of the vaccin, in gradually ascending amounts, at intervals of seven days. Beyond a considerable soreness around the point of injection and some aching in the back there was no reaction. The patient improved from the first, and was virtually well by the time the treatment was finished. It took all the irritability and nervousness out of him; his appetite and digestion became normal; he looked and felt and worked like a new boy.

At the end of four months after treatment his health is splendid; he has gained twenty pounds, works every day and in all kinds of weather, without a break, and has had no further attacks since I treated him.

Case No. 455. Farmer's widow; age, 63; weight, 140 pounds; respiration, 20; pulse, 86; temperature, normal. Was treated in

August and September, 1914. Chronic rheumatism in left knee, with considerable enlargement; also soreness in other joints.

During the previous winter and spring she had sent to me for medicines for her rheumatism and knee trouble. This I had sent occasionally for several months. She was getting no better, and I had her come in to see me. She hobbled into my office on August 3, 1914. After examining the knee and her general condition I told her that, as she had experienced, there was no use in plying her with drugs and salves and liniments, and that if she wanted to get well I would have to treat her tuberculosis, and then, if she had any rheumatism left, I would treat that afterwards.

This patient reported improvement from the first treatment, and it was evident in her movements as she came into my office. I gave her six doses of the vaccin at intervals of from seven to fifteen days, the irregularity in the treatments being due to excessive and constant rain during the time of her treatment, as she lived quite a distance from town and could come in only on fair days. In spite of the bad weather, her improvement was constant and rapid. She is now doing splendidly.

Case No. 164. Female; age, 35; weight, 120 pounds; height, 5 feet 8 inches; respiration, 24; pulse, 90; temperature, normal. This patient came of a rheumatic family; father had deformant rheumatism. She was tall, pale, sallow, anemic, weak, constipated, nervous, irritable, easily tired, and had suffered from muscular rheumatism and indigestion for twelve years, having been treated by various physicians with quantites of drugs.

When she came to me for medcine, on August 6, 1913, I told her that I had no more for her and that she would have to take the vaccin treatment first, if I were to treat her at all. She rather demurred at the idea of being tuberculous, but consented, because she had never been really helped by drugs. I gave her five doses of vaccin in increasing amounts, at intervals of seven days. At the end of that time her tongue had cleared, liver and bowels were more active, the complexion had cleared up, strength increased, headache less severe, and the rheumatic soreness was somewhat less. She would not admit her improvement except to a very small degree, and I did not see her for fourteen months. Then, on meeting her accidentally, I found her to look so much better that I was surprised. She told me that she had improved every day since her treatment, that she did not have the grip the last winter, gained fifteen pounds, can eat and sleep well, and had lost all rheumatism and headache.

Case No. 236. Latent tuberculosis. Consolidation in both apices. Male; farmer; age, 36; height, 5 feet 10 inches; weight, 120 pounds; respiration, 22; pulse, 86; temperature, normal. Has been a sufferer for years from chronic rheumatism, with acute exacerbations of some violence. Had a very severe attack in 1912. He was sent to Mineral Wells, Texas, in 1913, for baths and treatment, remaining

there for two or three months, seriously ill. Later he was sent home, one hundred miles southwest of this place, with little improvement, in a semi-invalid condition, and unable to do any work for nearly two years. He was also said to have diabetes mellitus.

This patient was moved to a farm four miles from this town, in August, 1913, in order to be under my care. At that time his condition was pitiable and rather uninviting, and it was up to me to show my hand in a case where the old methods of treatment had failed utterly. The patient was exhausted, weak and anemic; digestion and appetite poor; nervous, weak heart, irritable; unable to do any work; unable to bend or stoop over; very despondent.

I decided that his tuberculosis was hurting this man more than his rheumatism, and discarded all medicines. I gave him fourteen doses of the vaccin during September, October and November, 1913, in very gradually ascending doses, so as to avoid any reaction on account of the weak heart; the doses were spaced from five to seven days apart. He showed improvement from the beginning and gained rapidly in every way, appetite and digestion improving, assimilation becoming restored, and the rheumatic symptoms becoming less. The patient gained ten pounds in a short time and was soon able to do some work.

One year after treatment this man looks as well as, or better than, most men. He has gained fifteen pounds more, and would have improved on that had he not worked so hard. He has taken no medicine, nor has he been sick, and has had no rheumatism to bother him. He is well in every way and has done as much work as most men, this year working a very large crop. This was in November, 1914, one year after the termination of his treatment, in which he had received nothing but fourteen doses of vaccin. He is still improving.

THE WATERY EXTRACT AND VACCIN AS PREVENTATIVES IN HEMORRHAGIC CONDITIONS.

Case No. 14. Farmer's wife; age, 31; height, 5 feet 7 inches; weight, 120 pounds; respiration, 26; pulse, 90; temperature normal; swarthy complexion; anemic; vitality low. Consolidation in both apices; latent tuberculosis. Is now in the third month of pregnancy.

Was treated for three and a half months during September, October, November and December, 1901, with watery extract of tubercle bacilli.

She began to improve soon after taking treatment and her improvement was uneventful and rapid. At the close of treatment she had gained fifteen pounds, her skin had cleared, functions were normal, appetite and digestion excellent.

In all her previous confinements (four) this woman had suffered severe postpartum hemorrhages, which were very alarming. In the

approaching confinement the family expected another serious bleeding, but she passed through a normal confinement. This woman has been confined three or four times since, and she has never suffered any more postpartum hemorrhages; she is still in splendid health.

Case No. 11. Female; age, 47. Temperature, normal; pulse, 96; weight, 165 pounds; height, 5 feet 6½ inches. Consolidation in right apex; latent tuberculosis. Very pale and anemic from excessive hemorrhages during climacteric, which has not yet been passed. Feeble and nearly an invalid.

This patient was treated with watery extract for four months, from September to December, 1901, improving from the first. Soon she was able to do some work; the excessive bleeding ceased. At the end of four months the patient was in better condition than she had been in year. She was able to do her house work; the monthly periods were normal in amount; her skin and complexion had cleared, and she had been given a new lease on life.

Case No. 39. Male; age, 16. Height, 5 feet 10 inches; weight, 120 pounds; respiration, 26; pulse, 96. Profoundly anemic. Consolidation in right apex. Latent tuberculosis.

For several years this boy had suffered once or twice a year with excessive attacks of nose-bleed, which were alarming and hard to control. After each attack he was much exhausted, and recovery was slow.

Finally, in 1904, I persuaded the father to let me treat the boy a short while to see if I could prevent the recurrence of this trouble. I treated him only thirty days, using Nos. 1 and 10 of the watery extract, so that the doses which he received were small. There has never been another hemorrhage. In 1913 I immunized this patient with the vaccin, in five doses, during which I obtained one moderate reaction. Soon after the treatment, in 1904, he had gained ten pounds. He took a full course of study at Vanderbilt University, and also managed Wesley Hall, and, in spite of this extra work, he accomplished his whole task easily and came out at the end of the year ten pounds heavier than when he entered. There has been no more bleeding.

Case No. 318. Female; age, 26; weight, 103 pounds; respiration, 20; pulse, 120; temperature, normal. Consolidation in both lungs; very nervous, thin, pale, anemic; very delicate; weak and irritable heart. Has always suffered from severe postpartum hemorrhages.

This patient was treated with vaccin for two months, in November and December, 1913. Her improvement was rather slow during the winter, but was hastened in spring. She became pregnant in January, 1914, and came to me during the spring, with her dread of postpartum hemorrhage. I told her to go home and lie down to pleasant thoughts, as she was restored for good and would have no trouble in that way. She was confined in October, in an entirely

normal labor and without excessive bleeding. One month after confinement she was heavier and looked and felt better and stronger than in years before.

CONCLUSIONS.

All these cases are offered in support of several conclusions which I had formed as long ago as 1902, from the results which I had obtained with the watery extract of tubercle bacilli. These conclusions have been confirmed during all the years since, and were further supported by my results with the vaccin.

(1) The treatment and cure of bottle-fed and ill-conditioned babies by the watery extract of tubercle bacilli is successful.

(2) The watery extract will prevent the accidents of the hemorrhagic conditions.

(3) Latent tuberculosis is an underlying cause of every case of chronic rheumatism. The rheumatic symptoms yield to treatment with watery extract and of vaccin.

SOME STOMACH (?) CASES.*

By J. T. HALSEY, M. D., New Orleans.

Every physician of experience is aware of the fact that in many patients complaining of "indigestion," "dyspepsia," "stomach trouble," etc., such symptoms, on investigation, are found to be due, not to primary disease of the digestive organs, but are simply disturbances of the digestive function secondary to disease, or disordered function in various organs. The observation of many cases seen in office and consultation practice has convinced me that many physicians, while recognizing this fact, fail to appreciate how often digestive disturbances are due to such extra-digestive disease, and, neglecting to look for, they do not find the real trouble, and consequently make a wrong diagnosis and institute a treatment often useless, or even harmful.

Whole books could be, and, for all I know, have been written on this thesis, and naturally I shall not attempt to even mention all the diseases which may simulate disease of the digestive apparatus, but will, I believe, best serve the purpose of these re-

*Read before the Medical Section of the South Texas District Medical Association in Victoria, Texas, April 8, 1915.

marks by singling out a few such of special importance and by citing a few cases.

In tuberculosis the patients, in a large proportion of cases, first consult a physician for symptoms of indigestion. I doubt if any of us are so skillful or so fortunate that we do not readily call to mind many cases treated for longer or shorter intervals for dyspepsia, in whom, after a time, tuberculosis deveolped. So often have I seen this happen that, particularly in youths and young adults, I believe that we should always be on the lookout for tuberculosis in "stomach" cases. A rapid pulse, not otherwise explained, should in such cases be looked upon as suspicious, and this suspicion will be strengthened if there be even occasional slight rise of temperature.

Among the classical symptoms of anemia are those of gastric or intestinal derangement, and yet, over and over again, I see patients who have for months, and without benefit, been dieted or dosed with pepsin, soda, HCL, etc., and in whom the use of the Tallquist hemoglobin scale gives at once the correct diagnosis, tells the specific treatment, and is the means of attaining a prompt cure. In the essential anemias a few minutes spent in examining a blood smear enables us at least to make the correct diagnosis, give the proper prognosis, and do the little good possible for the patient, at the same time sparing him unnecessary and useless expense.

In this part of the world anemias suggest hookworms, and these, in turn, direct our attention to other intestinal parasites. I, and I am sure many or all of you, can at once call to mind cases of digestive disturbances unrelieved until the presence of the parasites was demonstrated, when the specific treatment was followed by prompt disappearance of the indigestion.

If time and space permitted I could cite case after case of "worms," in which the dyspepsia was so severe as to suggest the advisability of surgical relief for ulcer or gall-bladder or appendiceal disease. Examination of the blood smear is often all that is necessary to get on the right road to the correct diagnosis and the successful treatment of such cases.* A case in the practice of my colleague, Dr. Bethea, illustrates this so strikingly that I

*In this connection it is worth while to remember that round worms are not infrequently found in appendices at operation, and that they probably are in such cases the cause of the trouble.

think it worth while to briefly describe it. A woman came to him recently in great distress, saying that she had just been told that she had appendicitis, and must be operated upon at once. On her way to the hospital she was advised to see Dr. Bethea. To make a long story short, while the case resembled one of appendicitis, a blood smear showed a high percentage of eosinophiles. A purge brought away tapeworm segments; pelletierine brought away the worm, and all the symptoms cleared up.

Pelvic disease, which has not manifested itself to the patient, or about which, with a natural reticence, she is silent, not infrequently is responsible for such stomach symptoms as heartburn, epigastric pain, or even nausea or vomiting. If the pelvic condition is not recognized, all therapy directed to the stomach proves useless, while, if the pelvic condition is recognized and relieved, the gastric symptoms disappear. Gastric upsets are the most common of the recurring illnesses in children, and are usually attributed to acetonuria, indicanuria, dietetic mistakes, etc., according to the point of view of the family physician. I am convinced among the commonest causes of such recurring upsets are our old friends, diseased adenoids and tonsils. Their discovery and removal is all that is necessary to transform the "weak digestion" (?) into a normal one.

Nausea and vomiting due to irritation or disease of the internal ear or labyrinth is rather rarely met with, but is, I believe, less rare than is generally recognized. The extreme importance of its recognition justifies my mention of it. It is especially to be emphasized that in a case of chronic or acute suppuration of the ear, vertigo, nausea, and vomiting, are signs of irritation or actual involvement of the labyrinth, which, as you know, is separated from the meninges by bone of only paper-thickness.

The following case illustrates the importance of remembering this:

An elderly woman had been suffering for three weeks with frequently recurring nausea and vomiting, so that during this period she had retained little or no food and had become very weak. The patient had had for years a high blood-pressure, recurring attacks of tachycardia, and not infrequently attacks of heartburn or gastrodynia. She had also, since childhood, a chronic bilateral otitis media. The present attack was considered to be only an aggravated recurrence of her former indigestion, probably an expression of circula-

tory incompetence and indicanuria. During these three weeks the patient had become very deaf, which she attributed to the vomiting having "forced matter into the ears." Examination failed to show evidence of circulatory incompetence, but did show loss of bone conduction and complete deafness on one side, also occasional nystagmus. The patient also complained of a very distressing and intense vertigo. To make a long story short, she showed signs of labyrinthine irritation, and was promptly and completely relieved by local treatment of the ears.

An interesting feature in this case was that, during the period of gastric distress, the patient had two attacks of paroxysmal tachycardia, one of which lasted over twenty-four hours.

The cardiac features of the above case bring to mind several cases of paroxysmal tachycardia, in which the attacks were attributed to gastric disturbances. Such errors are not so inexcusable as they may at first thought appear, for attacks of paroxysmal tachycardia not infrequently follow gastronomic excesses, and the subjective symptoms are not infrequently those of epigastric distress, with distention of and pain in the stomach. Further, they often terminate with an attack of vomiting or with the belching up of large amounts of gas, which is followed by a sudden slowing of the heart and complete relief of the symptoms. I have so frequently been deceived, at least for a time, and have so often elicited this history in such cases, that I am convinced that tachycardial attacks are often mistaken for acute indigestion.

It would not be correct for me to consume time of this Society in speaking of renal and cardiac diseases as causes of gastric symptoms, while appendiceal and gall-bladder disease have so often been discussed in this connection that they need no mention. "Nervous dyspepsia" is the commonest type of indigestion which we meet with, and usually presents no pitfalls, even for the unwary, but now and then it masks a condition of hyperthyroidism or of organic disease of the central nervous system, overlooking which may prove disastrous.

Lastly, syphilis may mask itself under the innocent guise of gastric disturbance of most intense severity. One of my own disastrous failures illustrates this most strikingly, and is therefore reported:

In 1907 a white girl was referred to me by a physician from the interior of Louisiana. She had been suffering for more than a year from epigastric distress or pain whenever she ate, and nearly everything that she ate was promptly vomited. On account of her pain

and vomiting, her diet had been cut down to a few spoonfuls of gruel a day. She was painfully emaciated and weak. Family history was as follows: Father and mother healthy, many sisters and brothers living and well, mother had had no miscarriages. Physical and stomach examination gave no clue to the cause of the trouble. A diagnosis of "Anorexia nervosa" was made; a rest cure, with liberal feeding, was started, and continued for several weeks, with considerable improvement. At the end of this period, although the patient had gained fifteen pounds, vomited only rarely, and was taking a sufficient amount of food, homesickness forced the interruption of the treatment. Shortly after returning home the patient relapsed and was soon as badly off as ever. Some months later she came back to me and, in the face of negative clinical and chemical examinations, I advised an exploratory laparotomy, which disclosed nothing abnormal anywhere in the abdomen. The patient died some months later of inanition.

Several years later, 1912, the girl's father brought to another physician of New Orleans two other children suffering as had their sister. All methods of examination failed to explain the condition until, as a shot in the dark, the, at this time, recently discovered Wassermann reaction was tested and proved strongly positive. Antisyphilitic treatment brought about a startlingly rapid and complete relief of all symptoms.

Time and space permitting, it would be possible to mention other causes of indigestion and to cite illustrative cases for each, but I believe I have said enough to emphasize the importance of remembering that in the majority of cases the digestive apparatus is not primarily at fault in cases presenting themselves for the relief of so-called stomach symptoms, and to stress the necessity of general and systematic examination in such cases.

THE MEDICAL CAREER.*

By ISADORE DYER, Ph. B., M. D.,

Dean and Professorof Diseases of the Skin, Tulane School of Medicine, New Orleans.

The student who contemplates at this time a course leading to the practice of medicine has much to ponder.

The day of the apprentice is over; the pabulum projected for the ingestion of the student now and in the near future is more than the mental capacity of the ordinary student and it promises to tax the better ones.

*President's Address, Association of American Medical Colleges, Chicago, February, 1915.

The writers on medicine to-day deal in terms which are foreign to the student of two decades past and every year new terms creep in needing classification, even for contemporary students. The revolution has come with the concept of the microscopic field and its interpretation and the alignment of the many phases of scientific medicine has not yet come about. There is still much disorder.

The history of medicine is full of genius sparking in the field of nebulous uncertainty and clearing a way to scientific development. At times modern concepts have been anticipated. Barely a century has been needed to develop the microscope and its possibilities; less than half a century has made the invisible world of microbic organisms an open book with a well-nigh accurate familiarity with the habits and purposes of a large group of these bodies.

Literature has amassed volumes of research and facts have accumulated so fast that they are still not altogether co-ordinated.

Speculation has given way to specific knowledge in the cause, treatment and prevention of ancient diseases to the end that these most potent enemies of mankind have one by one yielded to the measures derived from the laboratory, until only a few are left.

The purposes of the medical profession have changed. Even though the cupping basin still hangs in out of the way places as the emblem of the barber's erstwhile practise, the progress in medical and surgical procedure has moved on into higher and broader planes.

The early mysticism of the chemical laboratory has gone forever and the symbolism of combined elements has developed a usefulness which reaches into almost every field of modern medicine. The formulæ of bacteriologic invasion mimics the organic compounds, and in the symbiotic processes the chemistry of nature expresses itself in new combinations. Physiologic functions proceed by chemical changes, and the very pathogenetic function of disease may be defined in chemical terms. The ions of newer concept make for finer appreciation of natural changes in tissues and as the higher processes of structural development or degeneration occur split products of chemical interpretation bear their parts.

The anatomist has a new viewpoint in the study of tissue and

as the central nervous system, the ductless glands, including the marvelous pituitary with its power of balance, open up more and more the secrets of their functions, our knowledge of the human economy and its possibilities will change.

The analysis of disease in Fothergill's day was based on gross evidence, determined by observation and the deductions warranted by experience. To-day the blood picture and the culture tube save time in the reach for a diagnosis and the man who is not trained to either misses the definite determination of his case.

Therapy is no longer based on empiric practise, though drugs still survive. Antagonistic similars are potent in overcoming zymotic types of disease and in preventing some of them. Vaccins and sera have grown into daily use and so wide a range have they covered in their polyvalent function that there is a possibility of reducing all such remedies to a small code of practise.

The development of civilization has brought about new diseases or new types of old diseases, and old diseases have laid lines for variations several times removed from the prototypes and in these multifarious opinions and investigations have arisen and will arise.

The purviews of medical practise have extended beyond the mere care of the sick. The State has created new fields of activity in contemplating sanitation and regulations in public health, requiring more and more expert training to satisfy the needs of the newer function.

The food supplies, the disease index, the eleemosynary institutions and even the proletariat fall within the practise of the State's solicitous concern.

Not only hospital care of the sick has obtained through the interest of the State, but even care of those sick in their own domiciles have been considered as falling under the obligation of the State in some places.

The limitations of the State policy and power along these lines are not to be measured just now—time alone may tell. The gradually increased and increasing power of the Health Board, however, argues that the possibilities of usefulness of the State are great, and that they may be much more far reaching than at present.

In the United States we have been engaged now several years

in debating standards of medical education. From the agitation have evolved more or less certain opinions, fixing desirable conditions under which graduates in medicine should be qualified to engage in the practise of the profession. Curricula have been weighed and measured to fit the case and more or less arbitrary entrance requirements have been agreed upon, with reservations as to a possible adjustment when the accepted regulations have been tried out. Much of the reform has been necessary and the results have proved this, for undesirable medical colleges have expired and more worthy colleges have reformed. Everywhere new standards prevail and medical education has moved to a higher plane.

In methods of teaching and in equipment all colleges have materially improved and a newer concept of medical education has come about. The scientific development of all the component departments of the schedule has necessitated better teachers, with special training in many branches needing more attention.

The result is now evident: The college course is so crowded with work that the allotted time is not sufficient to satisfy the various departments in their projected instruction. More time will soon be needed.

Those who are engaged in regulating the standards of medical education are not yet certain of the plan nor of the scope of the required education necessary to qualify the intending practitioner in medicine.

All have been willing to concede the cultural advantage of previous college training and in the end results the student who has finished a college course with an accredited degree will derive most from his medical course; as his college course has been more or less, he will proportionally profit—but are we altogether satisfying our obligations in making standards for the exceptional instead of for the average student?

In most of the discussion of the regulations and standards, the viewpoint usually paramount has been the demand for better and higher training; the student has not often been discussed.

Formerly the practise of medicine was largely vocational—the reasons of the student engaging in the study of medicine being varied, but, for the most part, through an inspiration to follow a calling, because of its traditions. The practise of medicine has never suffered from that class of students. In the net results of

the graduates in medicine, about 40 per cent. would quit within a few years after leaving the medical school.

It was possible to acquire the preparation for practise in three to four years and it often happened that a man gained a medical education after he was mature in worldly experience, being thus able to satisfy a delayed ambition.

To-day the requirements in medical education make these things impossible.

The intending medical student hereafter will more than ever weigh the question of his calling—because of the conditions confronting him. More than ever he must have an inherent and earnest proclivity, for no one of the professional careers open to a young man offers a harder road, attended with greater outlay in time and in money, than that of the study of medicine. His prior preparation is more exacting than in law or in engineering and his actual curriculum is also more exacting; even when he is through, the examining boards will likely soon require a hospital year, and if he is properly cautious he will want more experience before he accepts the responsibility of his profession.

The expenditure of almost half an expected lifetime in preparation for a career should warrant a return worth while.

What may the student expect?

For a livelihood, the practise of medicine brings in slow return, depending on location and opportunity. Success is laggard, as a rule, and even when emoluments balance expenditures, the profit in the practise of medicine is not considerable. The exceptional physician may grow well to do through fortunate investment, but, outside of the larger cities, few get rich.

For scientific interest the field in medicine is large, and the reward comes in achievement, but the compensation otherwise is negligible. Problems of all sorts develop for the laboratory man as well as for the clinician in medicine and their solution is worth while, but not profitable.

The lines of least resistance have appeared to be in the specialties, where larger fees may be demanded and where more or less ignorance may be disguised in technic.

The intending medical student should know these things and he should be told things. Too often the pack blindly follows a

lead and only when it is too late the young man realizes that he has spent himself for nothing.

The phases of a medical career are many and only some of them have been touched here—and the subject has been chosen and has been discussed with one prime object which shall be considered in the conclusion of this address—*What is our obligation as educators and what are we doing to make the medical career worth while?*

The review of the published announcements of most medical schools discloses the fact that the contents aim solely at indicating the requirements made of the student before he begins the medical course and submits the demands to be made upon him while he is so engaged. At no place is there any discussion of what he may expect thereafter.

In old-time essays or texts on medicine there was rather full discussion of the opportunities as well as the hardships to be expected and even while the field of medicine was barely covered its limitations were defined. Medieval medicine was a mixture of practise and of ethics, and even John of Gaddesden may have been a better doctor because he took time to learn theology, too. Our medical student is run through a mold in common with his fellows and only when he later on grows into a larger usefulness does he begin to know his subject.

During the past ten years there has been agitation enough, even unrest, with the result that the ideal medical course has been sought by all honest schools. The direct effect has been a marked increase in the cost of medical education, not only to the student, but to the medical school itself; efficiency has been purchased at an expenditure in budgets entirely out of proportion to the income derived from students. Some State institutions have met the demand by sufficient appropriations to cover the greatly increased cost of medical education, but other States and more institutions have been put to careful financing to come out with even small deficits.

The student is already aware of these things, and has weighed the prospect of a more expensive medical course from now on.

The efficiency is, after all, the chief purpose in medical education, so far as training the student is concerned. To this end faculty provisions take care of the more erudite or better trained

teachers, and the number of teachers on the staff make for a better training of the student.

But when the student has satisfied the required courses, has he had the best medical education we can offer him? Is he qualified as a physician?

In summing up the deficiencies in medical education in the United States a few years ago, methods here were compared with those abroad, and to our disadvantage.

Yet, from time to time, considerable American criticism has arisen, because in many foreign countries the course in medicine requires all of six years. Our best schools concentrate in four, and, in revising the system, plan a hospital year and more of early preparation to make up the discrepancies.

The examination of any student body at any part of the present accepted curriculum finds most of the students rather half-baked, and with a corrollary complaint from most of the teachers that courses are not long enough to give the student necessary instruction.

The branches related to the so-called special subjects are either neglected or discounted, and the medical graduate is put through on a limited schedule, with the suggestion that he may take up the special subjects *after he is graduated;* in other words, he may make his education as a doctor complete *after* he has become a doctor.

In a few schools the lack of sufficient scope in the so-called special subjects is compensated by an elective fourth year, in which the individual student may stress a particular field, making other subjects more or less minor.

We are really at that point in medical education where the student and his training should be reconsidered. Our present plan is too much inclined to make of the present graduate a predestined specialist, dissatisfied with the prospect of the drudgery attaching to a general practise. This is already evident in the overcrowding of the profession in the larger cities, the gravitation of young men who find no content in country practise.

Our curriculum should be broadened so as to finish the preparation of the student for general practise, with enough training in special branches to permit the care of ordinary cases and to

prevent the common confession of most physicians that "I know nothing about the diseases of the eye, or of the skin," etc., reflecting seriously on their qualification as physicians.

The abandonment of the field of general practise has been a natural outcome of a deficient general training, and the deficiency has resulted from an obvious lack of time in the schedule provided in a four-year course.

Whatever adjustment comes about should be weighed well, and the point of view of the one most interested, the student himself, should enter largely.

The medical career should be a more desirable choice now than at any other time in the history of medicine, but the argument of opportunity alone should not be sufficient; there must be a future consideration of the element of reward—and of compensation—to make the career worth while.

OBSERVATIONS ON THE USE OF CHLORETONE IN A CASE OF EXTENSIVE BURNS OF A CHILD 12 YARS OLD.*

By W. P. BRADBURN, B. S., M. D., New Orleans, La.

In presenting this paper, I wish to express my thanks to Dr. E. D. Martin for his permission to report this case which was seen in his service at Charity Hospital during my internship. Again I beg to acknowledge my indebtedness for Dr. Martin's encouragement in the study of the clinical side of the case.

I regret that I am unable to report observations on more cases of a similar nature, thereby making my deductions of more value, but since this case, I have not had the opportunity to outline the treatment in cases of extensive burns, yet it is hoped that the following data may be of some aid in the handling of similar problems.

The history is as follows:—

Colored female, aged 12 years, was brought to the hospital on March 3, 1914, suffering from extensive burns of the back, thighs and hands. Child had been playing with fire in the street, and clothing caught fire, the above named burns being sustained before it could be extinguished. When seen in the accident room, a dressing of borated vaselin was applied. Morphia, grain 1/12, had been given; this was at twelve noon.

---

*Read before the Orleans Parish Medical Society, April 12, 1915. [Received for publication May 11, 1915.—**Eds.**]

About the time that this case came to the Hospital, the use of chloretone was being exhibited in the treatment of burns in the children's wards. It was applied there, I believe, in the following manner:—A dram of choretone was dissolved in a quart of water; dressings were wet with this solution and applied to the burned area; relief of pain is claimed for this method.

Favoring the open treatment of burns, our usual routine treatment consisted in a saline bath, followed by the dusting of the burned surface with compound stearate of zinc, and the patient, without clothes of any description, was put to bed between sterile sheets. The bed-clothes were held off the patient's body by means of a frame which extended about one foot and a half above the surface of the body. These saline baths were repeated once or twice daily, and the patient allowed to remain in them as long as she felt comfortable. The temperature of the water was about 100° to 110°. After each bath, the usual dusting with zinc stearate.

It occurred to us in this case to try the chloretone, but not being in favor of dressings, we decided to apply the dry powder directly to the burned surface, using the compound stearate of zinc as a vehicle. This was done accordingly. The notes show that the child rested fairly well until 6:30 A. M. She was then reported as "very restless and complaining; pulse weak and thready." From this time until March 6, the child was reported as "resting very well," and appeared to be in a stupor nearly all the period, having to be aroused to nourish.

Repeated examinations of the urine during these days were negative. The cause of the *stupor* was sought. Upon questioning, it was learned that the chloretone and zinc had been mixed in equal parts by *volume* and not by *weight*. The exact dosage of chloretone which the child had been receiving during these days could not be estimated. Therefore, it was decided to omit the chloretone in the dusting powder on the night of March 6. The next day, the child "nourished better," and the following day, "nourished well."

We then came to the conclusion that the stupor had been due to the heavy dose of chloretone which she had been receiving.

To determine definitely if the chloretone had been responsible, we decided to wait several days and then to re-apply the chlore-

tone. On March 12, the use of chloretone in definite dosage was commenced. Ten grains were applied to burned area, and the notes show that the child "slept within an hour." On March 13, the following day, the same amount was again applied. The notes read "rested and slept a long while." The length of time for the chloretone to have effect was not recorded. March 14, ten grains applied at 10:30. Observation—"Did not sleep until one hour after application of the powder; was then very quiet and slept a long while."

Having shown definitely that the chloretone was absorbed and produced a constitutional effect, we began to try the effect of larger and smaller doses than the ten grains.

Our observations showed that five grains would produce a local analgesic effect; little if any constitutional action being observed. When fifteen grains were applied, the child was thrown into a heavy sleep, nearly approaching the stupor of the first few days after the injury, the period that the child had been receiving the large doses of chloretone.

Further history on the case shows that after my leaving the ward as intern, several skin-grafts were done by Dr. A. C. King, the last one on August 4, 1914. On August 10, the grafts were in good condition. On August 24, the child was discharged from the Hospital and sent to the clinic for further treatment.

Conclusions:—If we may make deductions from this case, they will be as follows:—

1. Chloretone applied as a powder is absorbed directly from the burned area.
2. The dosage may be so regulated that it is possible to obtain a definite action.
3. We believe that pain can be appreciably lessened, and proper rest and sleep obtained for our patient.
4. That it will markedly reduce the number of injections of morphia.
5. Its early use may be of some value in the lessening of shock.
6. That a *definite dosage* should be administered and mixed with some other powder as a vehicle. We prefer the compound stearate of zinc as it seems to come off more

readily in the bath than any other dusting powder that we have used.

7. That the essential thing, in order that we may not hinder the action of the chloretone, is the daily, or twice daily, bath.

8. That for each case a definite dosage for the desired effects should be established, until further data are obtained in this method of administration, and that fifteen grains be the maximum in a child of twelve years to produce stupor, and that an increase in this dosage be administered only after it is found that it is insufficient to bring about the results desired.

DISCUSSION OF DR. BRADBURN'S PAPER.

Dr. L. J. Genella: Many years ago barbazine gauze, a proprietary preparation of unknown composition, was in vogue. Being composed of butter, wax or tallow gave it the property of not adhering to granular tissue, and so it did not destroy the processes of repair. I believe it, like many other good things, is little used now.

Dr. Urban Maes: We have always been looking for an improvement on our present treatment of burns. Up to this time we have had better results from the use of picric acid as an immediate dressing. This is continued on account of its analgesic effect for four or five days when the granulations have sprung up, and the raw surface is protected by exudates. After this we depend on the open air treatment combined with a liberal supply of sterile talcum powder. A frame is put over the patient to prevent contact with the bed clothes. Drs. Martin and Bradburn's suggestion to use chloretone seems to me very good for its analgesic effect, for this is certainly a most painful injury and any addition to our armamentarium which will relieve pain is welcomed. Fifteen grains is suggested as the average dose, and I would like to ask the essayist if it matters as to the surface to be covered by this amount of chloretone.

Dr. S. C. Jamison: Does chloretone act as a general anesthetic?

Dr. Bradburn: The frame used is that recommended by Dr. Maes. The effect from 5 grains was a relief of pain with very little constitutional effect. From 10 grains there was one hour before the slight hypnotic effect was noted. With 15 grains there was a more prompt and intense constitutional effect.

THE DRAINAGE OF THE ABDOMINAL CAVITY.*

By A. JACOBY, M. D., New Orleans.

A surgical fetish and one that will die hard. Some will say that is a young man of little experience and others will add that the suggestion is from one with poor judgment. But there are a few—a very few perhaps—who will agree with the essence of my paper, and I feel that there are more who either believe and have not expressed themselves or are afraid of taking the initiative. But I state without hesitation that, if the next five years show the same tendency as the past five, there will be no abdominal drainage. Look back a few years, and even with some to-day, and see how long tubes were left in the abdomen, and yet the majority of those who stand highest in the surgical world consider forty-eight hours more than sufficient. It was the same fight when the suggestion was made to remove the appendix in appendiceal abscesses or ruptured appendices, and yet there are some excellent men who still drain the appendiceal abscess and wait till some future time to take out the appendix—a risk to the individual and the danger of another operation attach. But these are comparisons and we are dealing this evening with drainage of the abdominal cavity.

The question is one also which appeals both to the general practitioner and the surgeon as well, because it means earlier and quicker results in abdominal surgery. It is one also that will give food for thought and discussion, and I bring it before you, therefore, with the hope that the members will discuss this subject with all fairness to the writer.

I have been for some time an advocate of no drainage of the abdominal cavity, and when I say this, I mean the abdominal cavity. For one must understand that there is a difference between drainage of an abscess sac in the cavity and the cavity itself. One can see the chaotic state of this question when the number of drainage tubes are advocated as well as the different locations.

Now let us see what the abdominal cavity is. It is a large ovoid space situated between the thorax and the pelvis. It is filled with intestines and omentum to the greater proportion, and it is these

*Read before the Orleans Parish Medical Society, April 12, 1915. [Received for publication May 11, 1915.—Eds.]

that interfere with abdominal drainage. The location of drainage openings must be considered from the standpoint of the most dependent part of the cavity. In the female the best location is in the pelvis, the tube being placed behind the cervix and emerging from the vagina. In the male, however, the only manner to secure dependent drainage is by a tube inserted in the anterior wall of the upper third of the rectum and emerging from the anus. The favorite places, however, of those who drain the abdomen—except in female pelvic disease—are just above the anterior superior spine of the ilium, a point just above the bladder in the mid line, and in Petit's triangle just above the crest of the ilium and behind the anterior superior spine. How it is possible to drain a large cavity with tubes in these positions and the patient in the Fowler's or half-recumbent position is beyond me. It strikes me that the pus would be found in the pelvis of the individual, not at the sides or the center of the abdomen. Now what happens when we place our tubes? Many times, as evidenced by post-mortems on cases upon which this procedure has been carried out, the tubes are found pointing in the opposite direction to which they have been placed, and every time they have been found to be walled off by adhesions of small intestines and omentum. And when the tubes are left in for any length of time, either in contact with the large intestines or small intestines, a fecal fistula frequently develops. This also occurs where the bladder is in contact with the tube, a bladder fistula developing. Fortunately, they all close after a time. It must, therefore, appear doubtful in the minds of most observers of abdominal drainage whether drainage can be established either by the location of these tubes or by their size, usually one-fourth to one-half inch in diameter. Some of our surgeons use a Miculicz drain; that is, a drain made up of gauze and surrounded by rubber tissue. They claim that it makes a place of least resistance and is not as dangerous to the bladder or bowels as a tube. However, this drain is considered by the great majority of surgeons not as a drain, but as a plug, and is used to stop hemorrhage. It swells up almost immediately and plugs the opening completely. It is the futility of abdominal drainage that has made many surgeons give up the Fowler's position, because it not only increases the work of the heart, but probably also increases the tendency to ileus.

One of our greatest surgeons said some years ago that if you wish to drain the abdominal cavity, open the abdomen wide, place a pad of gauze underneath your incision, put through and through silk woven gut sutures, close together through the abdominal wall, and tie them loosely. After applying a large, copious dressing, turn your patient on the abdomen. In forty-eight hours take out your pad of gauze and tie your abdominal sutures. This is the only way to drain the abdominal cavity.

The observations of a few noted surgeons along these lines may not be amiss, and these quotations could be added to in large numbers. In Bruphy's Year Book of Surgery, 1913, we find these two quotations.

Bauer, in the *Archiv. fur Klinische Chirug.*, Dec., 1911, says that his excellent results are due to small incisions, rapid search for and abolishment of the cause of peritonitis and closure of the abdomen without drainage whenever possible. His figures are 115 cases of appendiceal origin, with 11 deaths—67 of these had not been drained, with five deaths. In other words, there were less deaths by far in the cases that were not drained. In fourteen, due to perforated ulcer of stomach or duodenum, there were four deaths, and ten of these were not drained, with two deaths. Ten cases, due to ruptured pyosalpinx, one died, and five of these not drained all recovered. In thirteen cases due to various causes, typhoid perforations, etc., there were six deaths; six of the thirteen had not been drained, and three of these died. Scheidman, in the *Deutsche Med. Wochenshr.*, August 29, 1912, gives 151 cases of diffuse peritonitis operated upon; 121 were not drained, with 20 deaths (16.5%), and 30 were drained, with 12 deaths (40%). Murphy in commenting on these results says that it must be taken into consideration here that the drain was used in the most severe cases and that deaths were caused despite the drain, and not caused or favored by the drain. He says further that it depends upon the form of infection whether we should drain or not. Despite his statements, the results are certainly so far superior without drainage that one cannot help but consider them in their future operative work. Mayo says that we cannot drain the general abdominal cavity for more than a few hours by a drain of any kind, because the foreign substance is walled off by union of the peritoneal coats of

the abdominal organs. As an instance, we formerly attached the gall-bladder in a cholecystotomy to the peritoneum to prevent leakage when the drain was removed, but we know now that the tube is completely surrounded by adhesions in a few hours. It is, therefore, with this idea in view that I suggest the plan of draining the small bowel in the cases of general peritonitis or pus in the general cavity by means of a Pezzer catheter. After opening the abdominal cavity, cleaning out the pus, and locating if possible the focus of infection, the small intestine is brought up. Then two linen sutures are placed parallel to each other, a hole cut between the two, and the catheter dropped in. The sutures are then tied together, and reinforced by Lemberts if desired, and the bowel dropped back into the cavity.

The error of drainage of the abdominal cavity is due to the belief that the absorption of pus or the end products of the invading bacteria is the cause of death. But such is the case only in streptococcic infection when no plan seems to be of any avail. Death is due to absorption of end products from the small intestines, and this is overcome by intestinal drainage. In this way the bowel can be washed out and the patient fed, if need be. The results have been so excellent in other abdominal conditions, especially in intestinal obstruction, that I cannot help but feel that many lives will be saved by the method suggested. My regret is, that I have not had the opportunity of trying out this procedure, which I shall certainly do whenever the occasion presents.

DISCUSSION OF DR. JACOBY'S PAPER.

Dr. Urban Maes: Dr. Jacoby has brought before us for discussion a very important subject. It has been my conviction for some time that it was impossible to drain the entire peritoneal cavity, but we can and should drain the most dependent portions of the cavity as represented by the two kidney fossæ and the cul de sac. By avoiding accumulations in these regions, where fluids naturally gravitate, we guard against the formation of residual abscesses. Drainage of the peritoneal cavity has been overdone when we consider some of the recent experimental work. The toxemia does not originate from the peritoneal cavity as was formerly taught, but from the lumen of the gut. Drainage, therefore, to be effective, must drain the lumen of the gut and the cavity should be drained in face of local accumulations of pus.

Dr. Gurd, formerly of this city, has published some very interesting experiments showing that the toxic substance in cases of paralytic ileus had its origin in the mucosa and not in the intestinal contents. These experiments tend to show that the poisonous substance is a split proteid, and not a bacterial toxin. Having been convinced that drainage of the lumen of the gut was more important than drainage of the cavity in peritonitis, I have used a procedure taught me by Dr. Parham, viz., to purse string a Pezzer catheter in the most distended coil of bowel which presented itself on opening the abdomen. I feel certain that I have saved some lives by this procedure.

Dr. E. D. Martin: I am very glad indeed that Dr. Jacoby has introduced this subject. It is not new, however, as we have been carrying out this treatment for many years and have reported a number of cases. I believe that Dr. J. W. Long, of Greensboro, North Carolina, deserves much credit for introducing and popularizing enterostomy. I do not agree, however, with the essayist in his suggestion that free pus in the abdominal cavity should not be removed before the introduction of the Pezzer catheter. I believe in the Fowler's position and pelvic drainage when fluid is present, or of any localized abscesses, for whereas I have faith in enterostomy, my faith would not allow me to depend solely upon it for the drainage of the peritoneal cavity.

Dr. Jacoby, in closing, said:. That the paper had reference to abdominal drainage and not drainage of any special region of the abdomen. The suggestion and the plan of closing the abdomen in general infection of the cavity was gaining adherents among the best surgeons and some of the foremost surgeons had been pursuing the plan for the past few years.

REPORT OF A CASE OF PURPURA HEMORRHAGICA, WITH AN ACCIDENTAL COMPLICATION FOLLOWING THE SUBCUTANEOUS USE OF HORSE-SERUM.*

By RANDOLPH LYONS, M. D., New Orleans.

This case is reported not so much because the disease is an uncommon one, but mainly because of an accident which occurred from the subcutaneous injections of horse-serum. While I fully realize the incompleteness of this report, my excuse in presenting it lies in the hope that it may prove of value to others in avoiding an unfortunate accident which might well have terminated fatally.

The history of the case is as follows:

The patient, Washington C., was a colored man of 39 years. He

*Read before the Orleans Parish Medical Society, April 12, 1915. [Received for publication May 11, 1915.—Eds.]

was admitted to the Charity Hospital on November 11, 1912, complaining of bleeding from the nose and gums.

There were no "bleeders" in the family as far as he knew. As a child he had measles, mumps and whooping cough. The patient states that he has always been subject to nose bleed which occurred two or three times a year but were readily controlled. When asked whether after an accident he had ever noticed that he bled more than other individuals he said that he did not. He has had frequent attacks of malaria, the last attack eight years ago. Seven years ago he had a sore on the penis but no secondaries. The patient drinks moderately and has lived all his life, until the past two years, in the country. Since boyhood he has always been employed on jobs which exposed him to high temperatures (kilns, boiler-rooms, stoker, etc.)

When the present attack came on he had been working where there was considerable steam and the temperature was high. Four days previous to admission to the Hospital he thought he had a little "gum-boil" on his lower jaw. The "boil" gradually increased in size and became more painful until the night of the tenth (four days later), when he decided to open it by squeezing it with his fingers. The "gum-boil" suddenly burst and blood spurted from it but the gum continued to bleed. A few minutes later his nose also started to bleed. The bleeding from both nose and gums persisted during that night and the next day. The hemorrhage while not profuse was a steady, uncontrollable drip. That night the patient was admitted to the hospital. He complained of slight weakness but no pain. His bowels were constipated.

The following morning (November 12) I examined the patient who appeared to be a rather intelligent, light-colored negro of medium size. He weighed about 150 pounds and was well developed and nourished. His mucous membranes were a little pale. The gums were spongy and oozing. Attached to the lower gum anteriorly was a hard, non-retracted clot. Blood was slowly trickling from his nose; non-retracted clots were visible in both nostrils. His temperature was normal; pulse 70 per minute, regular and of good volume; blood pressure 145 (Tycos). The vessel wall was thickened. Heart and lungs negative. Abdomen negative. Urine examination negative.

Course and treatment: On the night of admission the patient received 10 c. c. of sterile horse-serum by needle in the lower abdominal wall. This injection was administered by the House Staff and the site of the needle puncture was sealed up with collodion.

November 13. Today the bleeding from the gums has stopped but the hemorrhage from the nose continues. Both nostrils packed and peroxide of hydrogen applied to pack. A second injection of 10 c. c. of horse-serum was administered by the intern. The patient was put on calcium lactate, gr. 15, every three hours, fluid extract ergot, one dram every four hours.

November 14. The patient seems considerably weaker. Oozing of

blood still continues from nose in spite of packs. In the morning he vomited a large amount of blood followed by a short syncopal attack. Temperature, 98; pulse 90, weaker; blood pressure 100. Posterior nares repacked and saline enemata (to be retained) were given every six hours.

November 15. Patient restless during night and had to be given morphia twice. This morning he appears drowsy, very weak. Temperature normal; pulse 120, weak and thready, of low pressure; mucous membranes markedly pale. Bloody oozing from nose persists. On examining the body part of the upper half and all of the lower half of the abdomen was found to be black and blue from subcutaneous hemorrhage especially marked about the sites of the injections of the serum. A few small, purpuric spots can be observed on the front of his chest. Both legs show a symmetrical, petechial eruption—the lesions are very numerous (the legs look speckled) and vary in size from a pin-head to a pea; deep red or purple in color and do not fade on pressure. The skin between the lesions is normal. The lesions rapidly decrease in number above the knees. Few, discrete spots are to be seen on lower half of thighs. The upper third of both thighs present large ecchymotic areas continuous with that on abdomen. Penis and scrotum swollen and purpuric.

November 19. There has been no bleeding for past three days. Pulse 100, stronger. Patient states that he feels better. Lower half of abdomen feels hard and is tender. His nose bled a little this afternoon.

November 20. No further bleeding. Patient's left side of face and left ear markedly swollen and sore. Some deafness in left ear. (According to Dr. C. A. Weiss this was caused from the pack remaining too long in left posterior nose.) Petechial eruption on legs beginning to fade.

November 21. No more bleeding. Temperature 98.2; pulse 100; blood pressure 105. Blood examination: When ear lobe is punctured with stylet bleeding time is less than one minute (Duke's method). Coagulation time, 7 minutes. Hemoglobin 55%. Differential count: Polynuclears 85%; small lymp. 13%; large lymp. 2%; 8 normoblasts noted; marked poikilocytosis and polychromotophilia. 300 cells counted. No eosinophiles found after a much longer search. There was an "apparent" leucocytosis. Blood platelets were present but few in number and small. No clumps.

November 22. No further hemorrhage. Patient's general condition about same. Calcium lactate reduced to 10 grains three times a day. Tincture of ferric chlorid, gtt. xv, t. i. d. Temperature 100.4°. This is the first occurrence of fever. Swelling of left ear and face much diminished. Patient still complains of some impairment of hearing in left ear. Infiltration and inflammation of lower half of abdomnal wall sufficient cause for temperature and leucocytosis.

November 26. Patient has been running a moderate, irregular temperature. Abdominal wall soft and fluctuating in large areas. An incision was made over a fluctuating area and a large amount of pus evacuated. Patient's hearing in left ear much improved. He was transferred to surgical ward. From this time on the patient had an irregular septic fever until December 5. During this period another pocket of pus was found in the abdominal wall; an abscess developed on his right arm and another on the front of the left leg. All were opened and drained. In addition to this both ears discharged pus.

December 2. Calcium lactate was discontinued.
December 5. Nose bled for twenty minutes.

January 3. Patient has had no further temperature or suppuration since December 7. Feels stronger and has been up and about for a week. Blood examination showed: R. B. C. 4,184,000; hemoglobin 80%; color index, .97; leucocytes, 11,608. Differential: Polynuclers 64%; small lymph. 18%; large lymph. 15%; eosinophiles 1%; transitionals 2%. Blood platelets numerous and in large clumps. No nucleated red cells. Moderate poikilocytosis and polychromotophilia. Abdominal wall still shows some small, indurated areas.

January 4, 1913, discharged.

Patient was seen ten days later at my office and seemed much improved. Lower belly wall still hard in small areas. Blood examination revealed: R. B. C. 4 400 000; hemoglobin 85%; color index .96.

SUMMARY: To summarize briefly, we have to deal with a negro man of 39 years, who, in apparently good health, developed a severe hemorrhagic condition. Etiologically there is nothing in the family history to suggest hemophilia. In his personal history we find that he has been working since boyhood at occupations which exposed him to high temperatures and has been subject to two or three nose-bleeds a year, which are, however, readily controlled. He has had several attacks of malaria, but none for the past eight years. More significant is the history of a probable syphilitic infection seven years ago. Physically the man shows nothing of note except thickened radials. The disease proper was afebrile. The hemorrhage was mainly from the nose, although there was slight oozing at times from the gums. Hematemesis occurred on one occasion, but may have been due to the swallowing of blood during the night, from the posterior nares, as the vomiting took place upon waking in the morning. No

macroscopical blood was noted in the urine or stools. The petechial eruption on his legs was first noted five days after the onset of the hemorrhage.

On admission the patient was given by the house staff 10 c. c. of horse-serum subcutaneously in the left inguinal region, and the next day, as the patient's condition was worse, I asked the intern to repeat the injection of horse-serum. The serum (Mulford's) was prepared ready for use, in a syringe with a needle of moderately large bore. Later the intern remembered that there had been considerable oozing from the needle punctures, but they were sealed up with collodion and nothing more was thought of it. Naturally what happened was that the blood unable to escape externally from the two sealed up puncture wounds continued to escape into the abdominal tissues. Unfortunately, to make matters worse, infection of the extravasated blood took place and enormous abscesses of the abdominal wall developed. Finally a pyemic condition resulted with abscess formation on one leg and arm and suppuration from both ears.

It is unfortunate that the blood was not examined early, as an estimation of the bleeding time might have put us on our guard as to what to expect from a needle puncture. The blood was first examined ten days after the onset of the hemorrhage and revealed, besides the signs of a secondary anemia, a marked absence of eosinophiles in the stained slides. The blood platelets appeared fewer in number and smaller than normal. Two weeks later the eosinophiles were 1% and the blood platelets large and in clumps.

Finally, the facts that have been forcibly brought home to me by this experience are that in all hemorrhagic conditions (1) hypodermic medication should be watched carefully by the physician in charge, or if administered by an assistant, he should be warned of the possible danger of subcutaneous hemorrhage; (2) as small a needle as practical should be employed; (3) pressure should be applied over the puncture wounds and other suitable measures adopted if necessary; (4) examination of the blood and bleeding time should be made as early as possible.

DISCUSSION OF DR. LYON'S PAPER.

Dr. I. L. Lemann: The case of Dr. Lyons is one of interest and importance. Purpura hemorrhagica is a condition of which very little is known. Some twenty years ago Osler reported a series of cases showing purpura hemorrhagica, peliosis rheumatica, angineurotic edema, and Schœnlein's purpura. He was accused of confusing these conditions. Some years ago I reported to this Society a case similar to Osler's which showed at one and the same time symptoms of purpura hemorrhagica, Schœnlein's purpura, peliosis rheumatica and angineurotic edema. The patient had hemorrhages from vagina, urethra and rectum.

Dr. L. J. Genella: In the use of all serums, enough must be used; 50 c. c. to 100 c. c. should be used. When a quantity less than 15 c. c. is used one should not be surprised at obtaining an action that is nil.

Dr. Lyons (in closing): I purposely evaded going into the cause of the purpuras, as so little is known in regard to them. Generally speaking, they have been divided into two large groups—the essential or idiopathic types and the secondary or symptomatic types (e. g., meningitis, typhus, etc.). This case falls under the heading of the idiopathic type, simply because no cause could be found to account for the condition. In Schœnlein's Disease, the origin is supposedly rheumatic. Duke believes that purpura hemorrhagica is probably a symptom and not a disease and is caused by any agent which will sufficiently reduce the blood-platelet count.

SUBACUTE AND CHRONIC OSTEOMYELITIS.*

By JOHN F. OECHSNER, M. D., New Orleans.

In a previous paper, on acute suppurative osteomyelitis, we traced the course of the infection along the medullary canal, and soon thereafter through the cortical bone by means of the Haversian canals. Subsequently there is a diffusion of the pus beneath the periosteum, separating this from the underlying bone to a greater or lesser extent. From resultant edema, and the spontaneous rupture of the periosteum, there is contamination of the neighboring soft tissues. The further gross pathologic changes are not sufficiently clear cut to enable us to say exactly what will be the resultant damage; that is, we cannot say just how much bone will become permanently involved in the necrotic process, how long the active suppuration will continue, how much and to

*Read before the Orleans Parish Medical Society, March 22, 1915. [Received for Publication May 11, 1915.—Eds.]

what extent the soft tissues, including the joint ligaments, and even the neighboring joints themselves, may show in the destructive process. While directing our scientific attention to the changes which the bone is undergoing, which changes are of a rather definite character, we must remember that we are dealing with a virulent infection, carrying with it a profound toxemia, and consequently a diminished resistance on the part of the patient, and a corresponding inability on the part of his tissues to resist the destructive process. It has been our experience that these cases look sick, quite sick, and present a picture of profound septic intoxication. These observations lead to the practical importance of the establishment of free drainage, if necessary by multiple incisions. It is interesting to note the rapid change for the better in the appearance of the patient when this has been done.

Aside from a consideration of those profound cases of infection resulting in the death of the patient, and cases of multiple infection, the progress of a localized osteomyelitis will vary, so that the extent of subsequent necrosis will range anywhere from a small limited zone, containing a lake of pus, up to the greater or lesser involvement of the bone, from one epiphyseal line to the other. This is dependent upon a number of factors, the peculiar anatomic construction of the individual bone affected, the intensity and virulence of the infecting micro-organism, the patient's power of general resistance, the establishment fo a successful zone of defense, and so on. Unless free drainage is established, the average non-resistant case will go on to the development of multiple sinuses, the diffusion of pus throughout the surrounding soft tissues with their consequent matting together with plastic exudate, and the general appearance of the limb of the patient when brought to the operating table is such as not infrequently to suggest the remark, "were it not better to amputate." At least one of our cases which we show to-night, that of an osteomyelitis of the humerus, was of this type. Fortunately, in the large majority of cases, the epiphyses escape. Bone, in its process of regeneration, behaves so beautifully as to command our admiration, and conditions which in other parts of the body might yield to nothing short of radical extirpation, here find a field in greater conservatism.

The pathology of osteomyelitis and the process of repair have

been so exhaustively and admirably treated by Nicholls of Boston, that the reader is referred to his article, which appeared in the Transactions of the Section on Surgery and Anatomy of the American Medical Association, 1903. It will be well to dwell briefly, however, on certain definite changes which the bone does undergo, and which will enable us to more intelligently understand the principles underlying treatment. An examination of the lantern slides exhibited to-night will show that as soon as the X-ray is of value to us, a change occurs both in the marrow and just under the periosteum. In the former situation, the darker spots show the necrotic areas, and possibly some new bone from the neighborhood of the endosteum—later the sequestra are seen. In the neighborhood of the periosteum, new bone plaques, when the irritated periosteum has been excited to renewed activity. Whatever may be the respective merits of periosteum, or bone itself, in bone reproduction, it is highly probable, and so it seems to the critical clinical observer, that osteogenesis is dependent upon two factors, one mechanical, the other physiologic. The mechanical factor is represented by the narrow bone spicule left in a radical operation, or the periosteal column in the Nicholls operation, or the aseptic blood clot as originally suggested by Schede. Along these there travel the newly formed blood vessels as a vine along a trellis. The physiologic element consists of the osteoblasts, which very probably are located between the periosteum and the external surface of the cortex and between the endosteum and the inner surface of the cortical bone. It is also likely that new osteoblasts are generated and thrown in this new vascular area. Again it is highly probable, that in the successful experiments conducted by the champions of both theories, osteoblasts were contained in their experimental material. The symptomatology of subacute and chronic osteomyelitis is almost axiomatic. The history of acute invasion, the enlarged bone, the discharging sinuses, and the typical X-ray picture tell the tale.

With the differential diagnosis, it is not the purpose of this paper to deal just at present. Suffice it to say that its importance is not as great as in the acute form of the disease, when early operation is imperative. Moderate delay does not matter, and on the other hand, operation would be indicated in the majority of cases with which this condition might become confused.

TREATMENT.

It is more particularly in the line of treatment, that we wish to make a plea for the more radical and extensive removal of dead bone. Heretofore, repeated operations on the same case have been the rule rather than the exception; this has been in a great measure due to a failure to remove sufficient of the dead bone and to thoroughly open up all pockets where pus has accumulated, and which prevent ready healing. In appropriate cases, the operation of complete excision of the shaft of bone and the creation of a periosteal column, as advised by Nicholls, is the operation of choice. Nicholls advises that this be done about eight weeks after the acute invasion, or at a time when osteophytes are thrown out. Later on in the chronic cases, especially when a certain amount of periosteum has been lost, the operation is not applicable; in two of my cases, where this was attempted, the bone failed to regenerate, and the patients were subsequently submitted to successful bone grafting operations. Nor is the operation of complete excision of the bone always successful in the early cases. When there is a free and copious discharge of pus, the probabilities are that despite rapid bone regeneration, this continued infection would militate against a good result; it is practically impossible to render such a cavity aseptic at the time of operation. The operation is particularly applicable in those cases which we might call dry when there is practically no pus. Again is it more feasible in that part of an extremity where there are two bones, as in the leg and forearm, where the remaining healthy bone acts as a splint? We have never attempted the operation in the case of a single bone, humerus or femur, as its failure here might terminate disastrously.

Success in the chronic cases is dependent upon a sufficiently radical and extensive removal of the dead bone. Multiple operations on the same case are unnecessarily frequent, and are very often dependent upon an imperfect primary operation. A sufficiently long incision should be made through the soft tissues, with a due regard for the protection of important structures, all diseased bone and sequestra thoroughly removed, a narrow scaffold of bone left for the development of blood vessels, and the implantation of osteoblasts, and the ends of the bone and wound so

shelved as to permit of a uniform deposit of granulations from the bottom. On the other hand, however, in a localized necrosis, it would be bad surgery to remove too much bone, particularly if this were healthy. Of course it is frequently difficult to determine with the naked eye what part of the bone is diseased, or how much, and what part is new. The error is probably safer in the way of the removal of too much bone, than too little, inasmuch as bone has such powerful regenerative functions that the gap would soon be filled.

With the use of foreign material, such as the Morhof-Mosetig plug and Beck's paste, our experience has been limited. They are not used as extensively to-day as they were formerly. In the majority of cases, the regenerative process of the bone itself, now that the impediment to the process of repair has been removed, is sufficient for rapid healing. In fact, in some of our cases the bone seemed almost to grow too rapidly. Iodoform plugs and bismuth should probably find their greatest usefulness in those occasional persistent sinuses due to impeding jelly-like granulations, or limited surfaces where repair is unlikely.

Of a fairly large series of cases, we have selected three, as they represent different bones involved in the septic process, and w are also able to exhibit these patients to-night. They are characteristic of the general class of the osteomyelitis cases which we encounter. We are also able in our lantern slide demonstration to show the regeneration of bone that has taken place, and we wish to compare them with the diseased bones before operation. Unfortunately the Hospital has sustained an irreparable loss in the destruction of its X-ray plates of a number of years, so that we will be unable to show the original pictures before operation and have taken the liberty of selecting three cases which are practically similar to what these were before operation.

Case No. 1. Theresa Noreh, 13 years old, was admitted to the hospital November 27, 1913. On August 31, 1914, she complained of pain in her right arm. Her mother thought she had hurt herself moving furniture, and therefore paid no attention to the child's complaint. About three days later she was taken with high fever and her arm became red, swollen, and very painful. The mother took the child to the hospital, where she was admitted directly to a medical ward September 4. Upon looking up the history file from this ward, a positive Widal was obtained on September 5 and positive malaria on September 9. The child was treated for typhoid and malarial fevers; temperature ranged between 99 and 104 degrees.

Physical examination: Poorly nourished, heart and lungs negative, spleen palpable, child looks sick, septic, the right arm shows a decided enlargement of the humerus from one end to the other and is riddled with sinuses, discharging pus. Operation November 29, 1913; ether anesthesia. A somewhat curved incision was made from the upper to the lower ends of the humerus. All of the soft tissues were matted down and indurated. The humerus was found disintegrated from one end to the other. The entire bone was removed from the upper to the lower epiphyses with the exception of a narrow scaffold posteriorly, the wound packed with gauze and treated as an open wound. An examination of blood during her stay in the hospital at this time shows negative for both Widal and plasmodia. She was discharged on December 30, 1913.

Case No. 2. Henrietta Rafferty, 8 years old, admitted to the hospital August 5, 1912; discharged October 30, 1912; diagnosis, chronic osteomyelitis left tibia. Previous history wanting. Admitted to the hospital from the amphitheater where an incision in the leg had been made and drainage established. Subsequent X-ray examination showed extensive disease of the lower half of tibia. Operation, October 3, 1912; ether anesthesia; free incision on anterior surface of the leg extending from junction of upper and middle third to near the ankle joint. Large amount of necrotic bone and sequestra removed from anterior aspect. Wound packed and drained as usual. Patient discharged from the hospital October 30, 1912, and subsequently dressed at the clinic.

Case No. 3. Esther Frey, 13 years old, was admitted to the hospital March 10, 1908. Present illness: About two months ago patient went to bed one night with fever. After lying down about one hour began to get pain in left lower thigh. Next morning pain had increased and fever had gone up some. On third day fever and pain were about the same. About a week later could notice swelling in leg, and about this time patient began flexing the leg, and since then has been unable to straighten it. Ten days after the illness began patient developed a profuse diarrhea. A physician was called, and he said patient had typhoid fever. Fever and pain disappeared about two weeks previous to admission to hospital. Physical examination shows an emaciated and poorly nourished child; a hard mass surrounds the lower one-third of femur.

Operation March 14, shows the femur necrosed for one-half its lower extent. Bone was freely chiseled throughout practically its whole diameter, with the exception of a narrow segment posteriorly. Wound was packed and drained in the usual way. Patient left the hospital on May 11, 1908. Blood examination during her stay in the hospital shows a negative Widal.

The pictures accompanying this article show the diseased bone before operation, and the complete regeneration of the bone at varying periods after operation. Cases got entirely well after practically one operation.

1. Extensive necrosis of humerus. 2. Regeneration of humerus after removal of all but a narrow scaffold of bone. 3. Extensive necrosis of lower end of tibia. 4. Tibia regenerated after extensive sequestrotomy. 6. Regeneration of femur after extensive removal of dead bone.

ILLUSTRATING ARTICLE OF DR. J. F. OECHSNER.

DISCUSSION ON DR. OECHSNER'S PAPER.

Dr. A. Jacoby: Mentioned a case of chronic osteomyelitis of eight years duration that was discharged as cured three weeks after operation. The disease was situated in the lower end of the femur and the incision used was made through the rectus femoris muscle. This case and several others will be reported later.

Dr. A. Eustis: I have been very much interested in Dr. Oechsner's paper. Some of you will recall a case which I reported last year in which I removed the entire humerus and six inches of the radius and ulna for a chronic osteomyelitis of seven years' standing. Although there was no periosteum left, there was a re-formation of the bones and a functional elbow joint. This operation was done during my practice in the country, but to date, five years since same, he has had no further trouble and is able to plow, shoot a gun, and perform other such acts. Osteomyelitis is a disease which should especially interest the internist as it so often simulates typhoid fever. However, with a white blood count the differential diagnosis is promptly made, and when once made the case becomes a surgical one. I cannot too strongly urge early operation as failure to open up the medullary cavity soon may terminate fatally from an acute endocarditis or pyemia.

Dr. I. Cohn: I agree with Dr. Oechsner in pointing out the necessity for an early diagnosis. The X-ray does not always demonstrate the condition in the early stages, and in one case recently under treatment the X-ray findings indicated "a periostitis." At the operating table I found a definite osteomyelitis (a pure culture of the staphylococcus was found from the pus in the medulla). Many of the so-called periostitis cases are not true periostitis but a cortical osteitis or the result of osteomyelitis. From recent experiments on the repair of fractures (a full report of which will appear in the June number of **Surgery, Gynecology and Obstetrics**) Cohn and Mann have found changes similar to "periostitis" on the surface of bones from which periosteum had been entirely removed. We have also found the periosteum inactive, even thinner than normal and pushed outward by callus in fractures. Perfect union has resulted in the absence of periosteum.

The thickened periosteum found in these cases is due to the proliferation of osteoblasts which have been pushed outward and have become adherent to the connective tube, known as the periosteum.

Slides were shown to illustrate the discussion.

Dr. Oechsner (in closing): This paper is one of a series on this subject. I think we should consider where there are osteoblasts. Nicholls removes the entire bone leaving only periosteum, but in this periosteum there are of course osteoblasts. In chronic cases it is best to remove a large amount of bone.

N. O. Medical and Surgical Journal

Editorial Department.

CHAS. CHASSAIGNAC, M. D. ISADORE DYER, M. D.

COLLABORATORS.

H. D. BRUNS, M. D., Surgeon-in-Charge Eye Department, Eye, Ear, Nose and Throat Hospital, New Orleans.
E. M. DUPAQUIER, M. D. (Paris), Prof. of Contagious Dis., Tulane Univ. of Louisiana.
A. G. FRIEDRICHS, M. D., New Orleans, La.
J. T. HALSEY, M. D., Prof. of Pharmacology and Therapeutics, Tulane Univ. of La.
JOSEPH HOLT, M. D., Ex-President Louisiana State Board of Health, New Orleans.
FELIX A. LARUE, M. D., Prof. of Operative Surgery, Tulane Univ. of La.
E. S. LEWIS, M. D., Emeritus Prof. of Obstetrics and Gynecology, Tulane Univ. of La.
OTTO LERCH, M. D., Prof. of Medical Diagnosis, Tulane Univ. of La.
R. CLYDE LYNCH, M. D., Prof. of Diseases of Ear, Nose and Throat, Tulane Univ. of La.
E. D. MARTIN, M. D., Prof. of General Surgery, Tulane Univ. of La.
RUDOLPH MATAS, M. D., Prof. of General and Clinical Surgery, Tulane Univ. of La.
AUGUSTUS McSHANE, M. D., Lecturer on Diseases of Ear, Nose and Throat, Tulane Univ. of La.
PAUL MICHINARD, M. D., Prof. of Obstetrics and Gynecology, Tulane Univ. of La.
C. JEFF MILLER, M. D., Prof. of Obstetrics and Clinical Gynecology, Tulane Univ. of La.
F. W. PARHAM, M. D., Prof. of Surgery, Tulane Univ. of La.
A. W. DeROALDES, M. D., Surgeon-in-Chief, Eye, Ear, Nose and Throat [illegible], New Orleans.
E. A. ROBIN, M. D., Prof. of Diseases of the Eye, Tulane Univ. of La.
EDMOND SOUCHON, M. D., Curator Museum of Anatomy, Tulane Univ. of La.
J. A. STORCK, M. D., Prof. of Diseases of the Digestive System, Tulane Univ. of La.
ROY M. VAN WART, M. D., Lecturer on Diseases of the Nervous System, Tulane Univ. of La.

DRINKING WATER ON RAILROAD TRAINS.

With the passing of the common drinking cup on railway trains and in other public places, a considerable step forward was taken in the prevention of certain diseases, known to be disseminated by the use of community drinking utensils.

That all the evils connected with drinking water on trains and at stations have not passed, however, is revealed in a circular emanating from the officials of the Queen and Crescent route, wherein it is declared that it is the purpose of this railway system to reject any drinking water that does not come up to standard, and to provide for the use of the public and

of employees only such water as is suitable for drinking purposes.

This determination has been reached after a careful examination of drinking water supplied in various divisions of this railroad system, and after tests had been made by competent laboratory experts.

This is a desideratum of long standing, and many a sane individual has reluctantly quenched his thirst at the rusting water tank of a day coach, discounting the chances taken in so doing. The Pullman tanks have been equally open to criticism, and it is only a recent practice in some Pullmans to have the water and the ice in separate compartments. It is not unusual, at this time, in those cars not so provided, to see the ice carefully handled by the ice man, using rubber gloves, as carefully brought into the car by the porter, using ice hooks for putting his ice in the tank—and then, when the ice does not go in the tank properly, the porter uses his bare hands to shove down the ice.

Sanitation applicable to railway travel is indeed needed, and it is gratifying to see the initiative in one important phase, directed at a proper water supply, undertaken by the utility itself, without formal procedure directing it.

THE STATE SOCIETY MEMBERSHIP.

Quite a stirring appeal has emanated from the office of the Secretary of the Louisiana State Medical Society in a circular which should arouse the attention of the members generally.

When the reorganization of the State Medical Society was undertaken in 1903, the profession throughout the State grew quite enthusiastic, and local parish societies increased in appreciable numbers. This continued over several years until the State Society had a satisfactory membership and one made up of the majority of physicians of the State.

For a few years past there has been a noticeable indifference, not only in the State Society itself but among much of the local organization. The extraordinary activity of a few of the large parish societies offers some compensation, but this is not enough. The State Society stands for too much to have a mere casual relation to the individual membership.

It is commendable that the present energetic secretary is

trying to create a new spirit in the Society's affairs, and all of the membership should support him in his endeavor.

The JOURNAL is now, as it has been always, interested in furthering the cause of the Society in its importance as related to State medicine. New problems are coming all the time, and a loose organization can accomplish nothing. Every reputable physician in the State should be a member of the State Society, and those now in membership should try to get the desirable outsiders to join. The expense attached to medical affiliation is small compared with the benefits accruing. Moreover, until a man has united himself to his fellows in the same calling he is not fulfilling the real objects of his cltizenship. The State Society offers fellowship, scientific advancement, economic relations with the rest of the profession and protection by a proper medical defense against accidents occurring in practice. The closer alignment of interests of those in membership means more for the general good of all, and a united profession openly affords the public better service.

The purposes of the medical profession are changing all the time, and we should be ready in our advisory capacities to assume the proper standing for public health which is, sooner or later, to be our function. Until recently membership in the State Society afforded the individual the published transactions, but evidently the status of the transactions of the current year is uncertain, for the official organ has not issued since its March number, which appeared late in April.* We are familiar with many of the difficulties attending a medical publication, but we believe that the contractual obligations engaged at the time the Society changed its official organ should not be lost sight of by the membership, and the editors of this JOURNAL are exercising the right as members of the Society, in this admonition to fellow members.

With a membership in the State Society comprising all eligibles the list would be large enough to make active many functions not now even contemplated; but more than anything else, the Society could become wholly independent of all privately owned journals in the State and could free itself of much of the usual

*As we go to press (July 24) the April and May issues of the Official Journal have just come to hand.

incubus of politics in which many State societies are so thoroughly steeped.

The advantages in membership are indeed large and should appeal to all gentlemen of the profession in Louisiana, aside from the moral obligation which dictates such affiliation as a part of the creed which the real physician should call his own.

THE NATIONAL BOARD OF MEDICAL EXAMINERS.

At the San Francisco meeting of the A. M. A., President-elect Rodman announced the organization of a National Board of Medical Examiners, to begin operating in the fall of the current year.

Many suggestions have been made, aiming at a standard examination for medical license in the United States, and Dr. Rodman himself for a number of years has earnestly worked at the problem. The result of these efforts would seem to be the solution of the matter.

The proposed National Board is a voluntary board. Its certification should establish the fact that the recipient has satisfied a standard test, conducted on the highest possible lines by a representative body of men, consisting of the Surgeons-General of the Army, of the Navy and of the Public Health Service, (with a second officer in each service additionally appointed). The Board further consists of a representative from the American College of Surgeons, from the association of American Medical Colleges, from the Federation of State Examining Boards, and of several representatives from the American Medical Association. The successful candidates become at once members of the Medical Reserve Corps of the Army or of the Navy, upon further satisfying the required physical examination, thereby establishing the Board's examination as sufficiently standard for government services.

The announcement by the Board has as yet excited little comment, notwithstanding its importance. There may be, and probably will be, considerable adverse comment on the Board—but this is to be expected in a venture of this sort.

The room for adverse comment, however, is not large when the objects of the Board are fully considered.

It is purposed to make of the National Examining Board a standard test for entering the practice of medicine in the United

States and its tributaries. The test is to be so high that the successful candidates before the Board will be so qualified that the certificate of the Board should be acceptable for registration anywhere. It is intended that the National Board shall take the same academic place in the United States that is occupied by the Conjoint Board of Great Britain, granting fellowships in the College of Physicians and the College of Surgeons.

State Boards are chiefly concerned in the operation of the National Board, but as the number of candidates from year to year appearing before the National Board will represent only a small proportion of the total graduates in medicine the State boards can have only a secondary interest. This interest must grow active only when licentiates of the National Board appear for registration in the several states. The basis of such registration cannot be much questioned and the State Boards, already represented by a regular member on the National Board, should welcome desirable men, qualified by a high standard in the states in which they may elect to settle. In other words, there is no likelihood that the National Examining Board will ever supplant State Boards, for the reason that for some time to come the National Board will conduct its examinations in Washington, D. C.; it will make the cost in time, travel and outlay of such material importance as to determine the test among those only who are willing to spend the time and outlay and to accept the conditions involved. The National Board has no thought of making its certificate cheap in any sense of the word.

The approval of the U. S. government services, as evidenced by the acceptance of the officials above noted, and by the approval of the Secretary of each service and the proffer of the laboratories and equipment of the Army and Navy medical schools, etc., in the conduct of practical and other examinations, will satisfy those who have argued for a Federal Board. The Board as proposed has the sympathy, co-operation and endorsement of the government, without the control, which might be objectionable.

The National Board of Medical Examiners, as proposed, may not entirely satisfy all the needs of the standard for medical licensure, but it is certainly an excellent beginning, and Dr. Rodman deserves credit and approbation for his part in furthering so excellent a cause.

THE HARRISON NARCOTIC LAW.

The Harrison law has now been in force sufficiently long to enable us to study some of its effects and defects.

Like many of our laws, even national, it seems to have been passed without sufficient intelligent preparation, or a forecast of sufficient scope as to its early results. In consequence, it will probably have to be amended and re-amended before it can work with satisfactory smoothness. Already various decisions as to the interpretation of some of its clauses have led to changes in the rules made for the enforcement of the law. So much so that recently, in this city, prescription clerks were going around having physicians put in proper shape recipes containing novocain, which at first was not supposed to be included in the workings of the law.

As usual, there is discrimination against the physician and in favor of nostrums. A new ruling makes it necessary for the physician to keep a record of each administration of a drug included in the law when given to a patient *at his office,* although the law excepts doses administered when *in actual attendance* upon the patient. This new ruling would make it appear that the doctor is not in actual attendance upon the patient when he treats him at his office, which not only is nonsense, but could easily be circumvented by the dishonest practitioner who could take the patient to another room, a hotel, etc., if his use of the drug was not legitimate. On the other hand, preparations can be sold over the counter if they contain less than a certain proportion of a habit-forming drug, and a prescription may be refilled if it contains less than that percentage, both of which things are pernicious and could, in time, nullify to a great extent the provisions of the law. Some of the worst cases of drug habit have had their origin in the use of cough medicines containing small doses of heroin, and of tonics with small doses of coca or cocaine. The amount of the drug should not cut any figure in the matter, as there is no provision made or possible to regulate the quantity of the preparation anyone may consume.

An encouraging sign of the favorable effect of the law is the report by some drug jobbers that sales of narcotics have fallen off about one-third since the law has been in force. This is all the more noteworthy because of the increased demand

for export, owing to the war in Europe, which must first be offset before a decrease can be noted. Taking this into account and making allowance for the continued legitimate use of the drugs, it would seem conservative to estimate that the enforcement of the Harrison law has already resulted in a reduction by one-half of the illegitimate use of habit-forming drugs.

A further illustration of the ultimate good effect of the law is furnished by the serious problem presented by one of its immediate results. The army of habitues who can no longer get their accustomed dope and yet have no means to obtain treatment for their habit, constitutes a difficulty, and a very serious one in this and other communities without unlimited means for such purposes. Evidently this phase of the question was not thought of or then was ignored by the framers of the law. Some provision should have been made for these unfortunates who, *at this moment,* are not responsible for their condition and should not be treated merely as criminals, and especially not inhumanly as such.

A great deal more could be written in the same strain, not for the purpose of criticising or of finding flaws, but to call attention to the necessity for the further study and amelioration of the law. Lack of space forbids. The above, we hope, will suffice to show that the earnest and honest physicians must actively co-operate with government officials in the intelligent study and enforcement of the law; also that the government must exercise good judgment and fairness in its interpretation of the new legislation.

Medical News Items

A CONFERENCE OF HEALTH OFFICERS
was held on July 15-16, 1915, at the New Orleans Court Building, New Orleans, called by the Louisiana State Board of Health.

The following topics pertinent to health conditions were selected for discussion: Malaria; Plague Prevention; Regulations; Rural Sanitation; Sanitary Inspections; Social Hygiene; Pellagra; Anthrax; School Inspection.

The attendance was good and included some visiting sani-

tarians of national repute. Interest was maintained throughout and the discussions should bring valuable results.

CONGRESS POSTPONED.—The meeting of the Seventh International Congress of Obstetrics and Gynecology, which was scheduled for September of this year, has been postponed until September, 1917.

THE AMERICAN SOCIETY OF TROPICAL MEDICINE elected the following officers at its annual meeting in San Francisco on June 15, 1915: President, Dr. Milton J. Rosenau, Boston; first vice-president, Dr. Bailey K. Ashford, San Juan; second vice-president, Dr. C. C. Bass, New Orleans; secretary, Dr. John M. Swan, Rochester, New York. Dr. Isadore Dyer, of New Orleans, was elected one of the councillors for the next two years.

THE MISSISSIPPI VALLEY CONFERENCE ON TUBERCULOSIS will be held in Indianapolis, September 29 to October 1 inclusive.

PHYSICIANS' STUDY TRAVELS.—A tour has been announced by the American Society for Physicians' Study Travels, starting about September 11 from Philadelphia. Interesting demonstrations and lectures will be given at Johns Hopkins Hospital, Virginia Hot Springs, White Sulphur Springs, and Hotel Chamberlain, Old Point Comfort. For further information communicate with Dr. Albert Bernheim, 1225 Spruce Street, Philadelphia.

MEETING OF ATTAKAPAS CLINICAL SOCIETY.—The regular annual meeting of the Attakapas Clinical Society was held in New Iberia, La., June 23, 1915. A clinic was held in the Shaw Sanitarium preceding the regular meeting, and a scientific program was afterwards carried out in the parlors of the Hotel Frederic. Dr. W. W. Lessley, of Carencro, La., presided. The report of the secretary, Dr. Clark, of Lafayette, showed an increase in membership during the past year of nearly 100 per cent. The election of officers resulted as follows: President, L. O. Clark, Lafayette; vice-president, J. P. Harrison, Segura; secretary-treasurer, W. F. Carstens, New Iberia. Lafayette was selected as the next meeting place.

LOUISIANA LEGISLATURE'S RESOLUTIONS FOR PURE FOOD AND DRUGS.—Under Act 36, the Louisiana Legislature recently adopted resolutions of endorsement for the work of the presi-

dent of the State Board of Health for pure food and drugs. The resolutions are given in full:

"*Whereas*, Dr. Oscar Dowling, president of the Louisiana State Board of Health, ex-officio commissioner of food and drugs, in his administration of these departments has demonstrated the highest regard for his oath of office and courage in the cause of public health against mercenary interests, which have attacked the work of the Louisiana State Board of Health and discredited its efforts to protect the public; therefore, be it

"*Resolved* by the Senate of the State of Louisiana, the House concurring, that we approve the campaign of the Louisiana State Board of Health as conducted by Dr. Oscar Dowling, president, to rid the State of Louisiana of the pernicious patent nostrums so widely advertised and sold under misleading and fraudulent pretenses as to curative properties.

"*Resolved further*, That we commend the action of the Louisiana Press Association for its indorsement of the Louisiana State Board of Health in its effort to control the patent medicine evil, and Dr. Oscar Dowling, president, for his defense of the medical profession, the American Medical Association and the Louisiana State Board of Health at the twenty-sixth annual session of the Louisiana Press Association in Monroe June 10, 1915, against the attack made by one of the speakers from a neighboring state who appeared on the program.

A JOURNAL REORGANIZES.—The *Hospital News* Publishing Company announces that its journal, *Hospital News*, has been completely reorganized, with the addition of a large editorial staff. The object of this journal is to chronicle hospital activities in all their manifold phases, and incidentally to create on the part of the general public a sympathetic interest in hospital work. It is the hope of those interested in the journal that eventually it may become a force in combating quackery and charlatanism, and overcome the prejudice which still exists in many quarters with regard to hospitals and physicians. In addition to the medical articles, *Hospital News* will carry short stories, personal paragraphs, hospital happenings and other matters of interest to nurses, hospital managers and physicians. There will also be a place in the journal devoted to classified information in regard to interne positions in the different hospitals in the United States available to medical students and recent graduates, and similar data in regard to nurses' training schools and their requirements for entrance.

THE SOUTHERN MEDICAL JOURNAL ANNOUNCES that after

July 1 its editorial and business offices will be in Birmingham, Alabama, Suite 516 Empire Building, instead of in Mobile, Alabama, as formerly. The change is made for geographical reasons, Birmingham being the center of the territory of the Southern Medical Association, and a city with excellent railroad facilities, and therefore a much better location for the conduct of its business.

No Unusual Profit in Drug Plants.—According to the U. S. Department of Agriculture, which has recently issued a bulletin on the subject, the growing of drug plants offers no unusual opportunities for profit to the American farmer who undertakes it as a minor source of income. The government specialists believe that many drug plants require a special knowledge of cultivation and handling; that the demand for a number of them is so limited that there is danger of overproduction; and that those who undertake this line of work should devote themselves to it entirely and be familiar with market conditions to prevent a loss of time and money.

Appropriation for Nebraska Hospital.—The Nebraska State Legislature has recently appropriated $50,000 for the erection of a hospital on the campus of the University College of Medicine. This hospital is to be a teaching hospital for the University of Nebraska, under the control of the board of regents, and is to receive indigent patients from the entire state.

Relief Fund for the Belgian Profession.—The report of the treasurer, Dr. F. F. Simpson, of the committee of the American physicians for the aid of the Belgian profession, shows, for the week ending July 12, 1915, a total disbursement of $7,310.04.

Boric Acid as a Food Preservative Prohibited.—The United States Supreme Court recently upheld the constitutionality of the Illinois Pure Food Law which prohibits the sale of a food preservative containing boric acid. It was stated in the decision that the validity of the law must be upheld unless it could be shown beyond doubt that boric acid as a food preservative was not unwholesome. The court held that this had not been done.

San Francisco Has Public Health Sermons.—One of the interesting features which marked the meeting of the American

Medical Association meeting in San Francisco was the addresses delivered on various aspects of public health in fourteen of the churches of that city by members of the association.

Rush Medical College Raises Requirement.—Rush Medical College, which is the medical department of the University of Chicago, announces that students entering the medical courses will hereafter be required to take a fifth year, heretofore optional, for graduation. The work of this fifth year will consist of an internship in a hospital approved by the faculty, or advanced work as a fellow or research student in one of the departments of the college, with the presentation of a thesis embodying original work.

Examination of Florida School Children.—The Florida Legislature has recently passed an act which provides for the thorough examination of all school children of the state, including the rural schools, under the direction of the State Board of Health. This bill also provides for a sanitary survey of all school buildings and their surroundings. The bill was drawn up by Hon. Oliver J. Miller, introduced in the House by Hon. Forest Lake, and handled in the Senate by Hon. Arthur E. Donegan. Its passage is due in a large measure to their efforts. Dr. Miller wrote over three thousand letters throughout the state, besides having personal interviews with prominent educators, in the hope of furthering this cause.

Warning Against Typhoid.—A warning to vaccinate against typhoid fever during the summer months has been issued by the United States Public Health Service to the 400,000 government employees in the United States. The bulletin states that seventy-five government employees die each year from the disease. The Secretary of the Treasury has established 164 stations where antityphoid inoculation may be obtained without expense.

Judges Appointed.—Through the American Social Hygiene Association several months ago a prize of $1,000 was offered by the Metropolitan Life Insurance Company for the best original pamphlet on social hygiene for adolescents between the ages of twelve and sixteen years. This was done in an effort to popularize the social hygiene problem. The following have been selected as judges in the contest: Mrs. Martha P. Falconer; Lee K. Frankel, Ph. D.; Dr. Luther H. Gulick, New

York; Miss Julia C. Lathrop, Dr. Milton J. Rosenau, Boston; Dr. Victor C. Vaughan, Ann Arbor, Mich.; and Mrs. Ella Flagg Young, Chicago.

LEPROSY IN TENNESSEE.—The first case of leprosy said to have ever been found in Tennessee was recently reported by the State Board of Health in the person of a seventeen-year-old boy.

CONSUMPTIVES ADVISED TO STAY AT HOME.—A bulletin has been issued by the National Association for the Study and Prevention of Tuberculosis, advising only those consumptives who have at least $1,000 to spend to attempt to make a new home in the West. The bulletin further states that tuberculosis can be cured anywhere; that it is far better for a person of moderate means, such as the average working-man, to go to a sanatorium near home, than to go West and live in perhaps a more favorable climate, but without proper food or medical care; that although there may be plenty to do in the West and Southwest for ablebodied men, the consumptive will find it difficult to get work and should not go there in the hope of getting a job.

PELLAGRA INCREASING.—According to report, 1,299 cases of pellagra were reported to the Mississippi State Health Board in April. The state charity hospital was petitioned by the colored physicians and colored citizens, asking that the institution be opened for the treatment of pellagra patients. It is said that the hospital is already full of emergency cases, but the need of a separate institution for this rapidly increasing disease is emphasized in the petition.

BORDEN-KEEN FELLOWSHIP.—Professor W. W. Keen has established the Corinna Borden Keen Research Fellowship in the Jefferson Medical College, the income from which now amounts to $1,000. The gift provides that the recipient of the Fellowship shall spend at least one year in Europe, America or elsewhere (wherever he can obtain the best facilities for research in the line of work he shall select, after consultation with the Faculty), and that he shall publish at least one paper embodying the results of his work as the "Corinna Borden Keen Research Fellow of the Jefferson Medical College." Applications stating the line of investigation which the candidate desires to follow shall be forwarded to Dr. Ross V. Patterson, Sub-Dean, Jefferson Medical College, Philadelphia, Pa.

PERSONALS.—Dr. Richard H. Creel, of the U. S. Public Health Service, has been appointed chief health officer of Boston as sole head of that department.

Dr. William J. MacNeal has been appointed director of the laboratories of the New York Postgraduate School and Hospital to succeed Dr. Jonathan Wright, who resigned.

Dr. Paul Reiss is spending the week-ends at his home in Pass Christian, Miss.

Dr. C. Jeff. Miller will leave in August to spend a while in Rochester, Minn., visiting the Mayo Clinics.

Dr. W. A. Pennington, of Elton, La., is a candidate as a delegate to the coming Louisiana Constitutional Convention.

Dr. and Mrs. T. J. Dimitry and family, of New Orleans, have returned after a trip in the East.

Dr. W. J. Maloney, formerly a professor in Fordham University, who has been serving as a surgeon with the Dardanelles expeditionary force, is in a hospital in Alexandria, Egypt, suffering from paralysis of the right leg and a gunshot wound in the right wrist. He expects to return to America.

Surgeon-General William C. Gorgas, of the U. S. Army, recently received the honorary degree of Doctor of Laws from Georgetown University, in recognition of his work in the Panama Canal Zone.

Surgeon John D. Long, U. S. P. H. S., has been made director of Health of the Philippine Islands, a position created under the new Philippine health law, which became operative July 1.

REMOVALS.—Dr. W. R. Clement, from 109 W. Park Avenue, Oklahoma City, to Jennings, Oklahoma.

Dr. Maud Loeber, from 1729 Marengo Street, to 2315 Carondelet Street, New Orleans.

Dr. Cosby Swanson, from Empire Life Building, to Suite 929 Candler Building, Birmingham, Ala.

MARRIED.—On June 23, 1915, Dr. Edward Lacy King, to Miss Edith Chalin Follett, both of New Orleans.

Dr. Ruffin Trousdale Perkins to Miss Catharine Caroline Churchill, both of New Orleans, on May 27, 1915.

DIED.—On June 29, 1915, Dr. Robert E. Swigart, superintendent of Medical Department of the United Fruit Company, aged 40 years.

Book Reviews and Notices

A Treatise on Clinical Medicine, by William Hanna Thomson, M. D., LL. D. W. B. Saunders Company, Philadelphia and London, 1914.

The original feature of this work, strictly clinical, is the stress laid on: First, "catching cold," as the most common cause of disease and death in cold climates, under the head of pathology of chill affecting localized areas of skin.

Second, the significance of certain common but important symptoms, or accompanying conditions which chiefly determine the nature of the prognosis and the leading indications for treatment.

Third, remedies which are classified according to their special applications; fourth, infection by living micro-organisms as the greatest cause of disease and death, everywhere, with an attempt at a classification. The last section deals with diseases of particular organs and tissues, and shows no characteristic except concession, for the author's aim is throughout the work to assist the practitioner engaged in the performance of his duties.

DUPAQUIER.

Fever. Its Thermotaxis and Metabolism, by Isaac Ott, A. M., M. D. Paul B. Hoeber. New York, 1914.

These three lectures were delivered before the sophomore class of the Medico-Chirurgical College. They have been thought worthy of publication, as the subject is one of maximum importance in the practice of medicine. The studies upon this subject have occupied the author for forty-five years, as a practitioner of medicine and physiologist. A learned review on the subject with the many questions referring to it yet unsolved. DUPAQUIER.

A Handbook of Fevers, by J. Campbell McClure, M. D. Paul B. Hoeber, New York. 1914.

This book pretends to be no more than a handbook for the use of students and general practitioners, and the author has endeavored as far as possible to confine his attention to the more practical aspects of the diseases under consideration, devoting more space to treatment than many will perhaps approve of. Detailed descriptions of the pathological anatomy of the various diseases have been purposely avoided and, only such points in epidemiology and bacteriology have been dwelt upon as seem to be absolutely necessary. Only those tropical diseases have been included in this small volume as may possibly be met with in Great Britain in the ordinary course of practice.

The book is written mainly from the viewpoint of practical public

health as proven by the insertion of Beriberi and Pellagra under the head of fevers, which the author admits is not strictly correct. But they are welcome when the real object of the work is considered.

DUPAQUIER.

Modern Medicine, by Sir William Osler, M. D., and Thomas McCrae, M. D. Vol. IV, second edition. Lea and Febiger, Philadelphia and New York. 1915.

Part first, which deals with diseases of the circulatory system, and part second with diseases of the blood, take much over more than half the volume. They form the capital parts. The introduction of part first by Ch. F. Hoover, M. D., general considerations in cardiovascular disease, and that of part second by Richard C. Cabot, M. D., general pathology of blood-forming organs, have engaged our attention very closely, with profit and pleasure.

The other parts have reference to diseases which are not so commonly connected with practice, but from the viewpoint of information they are equal to the standard of this excellent text-book.

DUPAQUIER.

Diseases of he Bronchi, Lungs and Pleura. By Frederick T. Lord, M. D. Lea & Febiger, Philadelphia and New York. 1915.

We certainly were in need of a special "practical treatise" on the diseases of the respiratory organs, and this book amply fills it. As stated by the author, the aim has been to present current knowledge, founded on the literature and the experience gained in the wards and pathologic laboratory of the Massachusetts General Hospital, in such form as to be of value to students and practitioners and also to provide a basis for further research. Pulmonary tuberculosis is not considered under a separate heading, but special attention is given to conditions which simulate pulmonary tuberculosis and their differential diagnosis. The book is illustrated with ninety-three engravings and three colored plates. References are plentiful.

DUPAQUIER.

Acute General Miliary Tuberculosis, by Professor Dr. G. Cornet, of Berlin and Reichenhall. Translated by F. S. Tinker, B. A., M. B., etc., of Liverpool. Paul B. Hoeber, New York.

A translation in English text of lectures to a class at college is what we call this monograph, with an abundant catalog of references. But, the lectures are not any more valuable than others given in other universities in other lands. They are certainly not superior to the classical teaching in French universities where the orginal and expressve term "Granulic" was coined many years ago, by a master professor, too.

DUPAQUIER.

International Clinics. Volumes III and IV, twenty-fourth series, 1914, and volume I, twenty-fifth series, 1915. J. B. Lippincott Company, Philadelphia and London.

We can safely state that, at no time since we became acquainted with this excellent publication, did we ever find a single article that was not most profitable to the practitioner.

Many times the articles, chiefly of recent series, bore the mark of superiority and of great originality.

The publication is growing in value, certainly. It ought to become extremely popular and this we heartily wish.

DUPAQUIER.

Reference Handbook of the Medical Sciences. Vol. IV, third edition, 1914. William Wood and Company, New York.

It is with great pleasure that we call attention to this beautiful work and recall that the Reference Handbook of Medical Sciences embraces the entire range of scientific and practical medicine and allied science. The contributors are all eminent writers. This third edition by Thomas Lathrop Stedman, A. M., M. D., has been completely revised and rewritten from the first and second editions, the same original plan being followed.

The whole work will be complete in eight volumes.

Volume four is illustrated by numerous chromolithographs and nine hundred and seventy-seven half-tones and wood-engravings. The mechanical production of the book does credit to the publishers.

DUPAQUIER.

Reference Handbook of the Medical Sciences. Third edition, edited by Thomas Lathrop Stedman, A. M., M. D. Volume Five. William Wood and Company, New York. 1915.

We are pleased to notice the appearance of another volume of this standard work, embracing that division included between the letters H. (**HEA.**) and L. (**LIF.**)

Throughout there is evidence of wholesale revision of the text, many new contributors are in evidence and the illustrations (numbering over 700) are strikingly good.

The established position of this standard cyclopedia on medical topics has been all the more emphasized in the new edition of which this present volume is representative.

DYER.

Lectures on the Heart. Comprising the Herter Lectures (Baltimore). A Harvey Lecture (New York) and address to the Faculty of Medicine at McGill University (Montreal) by Thomas Lewis, M. D., F. R. C. P., D. Sc. Paul Hoeber, New York. 1915.

The science of electrocardiography has completely overturned former notions of cardiac physiology, normal and morbid, and every

health as proven by the insertion of Beriberi and Pellagra under the head of fevers, which the author admits is not strictly correct. But they are welcome when the real object of the work is considered.

DUPAQUIER.

Modern Medicine, by Sir William Osler, M. D., and Thomas McCrae, M. D. Vol. IV, second edition. Lea and Febiger, Philadelphia and New York. 1915.

Part first, which deals with diseases of the circulatory system, and part second with diseases of the blood, take much over more than half the volume. They form the capital parts. The introduction of part first by Ch. F. Hoover, M. D., general considerations in cardiovascular disease, and that of part second by Richard C. Cabot, M. D., general pathology of blood-forming organs, have engaged our attention very closely, with profit and pleasure.

The other parts have reference to diseases which are not so commonly connected with practice, but from the viewpoint of information they are equal to the standard of this excellent text-book.

DUPAQUIER.

Diseases of he Bronchi, Lungs and Pleura. By Frederick T. Lord, M. D. Lea & Febiger, Philadelphia and New York. 1915.

We certainly were in need of a special "practical treatise" on the diseases of the respiratory organs, and this book amply fills it. As stated by the author, the aim has been to present current knowledge, founded on the literature and the experience gained in the wards and pathologic laboratory of the Massachusetts General Hospital, in such form as to be of value to students and practitioners and also to provide a basis for further research. Pulmonary tuberculosis is not considered under a separate heading, but special attention is given to conditions which simulate pulmonary tuberculosis and their differential diagnosis. The book is illustrated with ninety-three engravings and three colored plates. References are plentiful.

DUPAQUIER.

Acute General Miliary Tuberculosis, by Professor Dr. G. Cornet, of Berlin and Reichenhall. Translated by F. S. Tinker, B. A., M. B., etc., of Liverpool. Paul B. Hoeber, New York.

A translation in English text of lectures to a class at college is what we call this monograph, with an abundant catalog of references. But, the lectures are not any more valuable than others given in other universities in other lands. They are certainly not superior to the classical teaching in French universities where the orginal and expressve term "Granulic" was coined many years ago, by a master professor, too.

DUPAQUIER.

International Clinics. Volumes III and IV, twenty-fourth series, 1914, and volume I, twenty-fifth series, 1915. J. B. Lippincott Company, Philadelphia and London.

We can safely state that, at no time since we became acquainted with this excellent publication, did we ever find a single article that was not most profitable to the practitioner.

Many times the articles, chiefly of recent series, bore the mark of superiority and of great originality.

The publication is growing in value, certainly. It ought to become extremely popular and this we heartily wish.

DUPAQUIER.

Reference Handbook of the Medical Sciences. Vol. IV, third edition, 1914. William Wood and Company, New York.

It is with great pleasure that we call attention to this beautiful work and recall that the Reference Handbook of Medical Sciences embraces the entire range of scientific and practical medicine and allied science. The contributors are all eminent writers. This third edition by Thomas Lathrop Stedman, A. M., M. D., has been completely revised and rewritten from the first and second editions, the same original plan being followed.

The whole work will be complete in eight volumes.

Volume four is illustrated by numerous chromolithographs and nine hundred and seventy-seven half-tones and wood-engravings. The mechanical production of the book does credit to the publishers.

DUPAQUIER.

Reference Handbook of the Medical Sciences. Third edition, edited by Thomas Lathrop Stedman, A. M., M. D. Volume Five. William Wood and Company, New York. 1915.

We are pleased to notice the appearance of another volume of this standard work, embracing that division included between the letters H. (**HEA.**) and L. (**LIF.**)

Throughout there is evidence of wholesale revision of the text, many new contributors are in evidence and the illustrations (numbering over 700) are strikingly good.

The established position of this standard cyclopedia on medical topics has been all the more emphasized in the new edition of which this present volume is representative.

DYER.

Lectures on the Heart. Comprising the Herter Lectures (Baltimore). A Harvey Lecture (New York) and address to the Faculty of Medicine at McGill University (Montreal) by Thomas Lewis, M. D., F. R. C. P., D. Sc. Paul Hoeber, New York. 1915.

The science of electrocardiography has completely overturned former notions of cardiac physiology, normal and morbid, and every

one who would be abreast of the times must inform himself of the basis of this new work. Dr. Lewis in the first three lectures of his new volume outlines the manner of making observations by means of the electrocardiograph and sketches some of the valuable facts already ascertained and suggests broadly the field in which the demonstration of new facts may be expected. Although the electrocardiograph is adapted only to hospital work both because of its expense and of its lack of portability, still the practitioner must not waive its use aside as something beyond his ken. It is only by correlating the bedside phenomena as observed by palpating finger and ausculating ear with the scientific interpretation of these phenomena as made out by such instruments of precision as the electrocardiograph that we shall be able to make progress in diagnosis, prognosis and treatment. Every practitioner may not use an electrocardiograph but every practitioner should understand why and how the contraction waves of the heart muscle set up electrical currents which cause in a galvanometer oscillations which can be graphically registered; further that normal heart muscles give rise to standard curves as thus recorded and that departures from the standard curve can be definitely traced to morbid anatomy and physiology in a particular site. All such departures from the normal are not equally important from a prognostic standpoint and each has its own therapeutic indications.

Dr. Lewis has very simply and interestingly explained how the electrocardiograph has made these things possible. His fourth lecture is devoted to the consideration of dyspnea. Dyspnea, he states, is not to be explained even in heart cases entirely by the embarrassment of the circulation in the lungs. "Dyspnea which comes from mechanical causes, be they primarily of circulatory, pulmonary or bronchial origin, proclaims itself clinically by its attendant cyanosis." There is, Lewis contends, a special symptom complex in which there is no cyanosis, in which the patients exhibit few signs of venous or liver engorgement, and in which pressure upon the abdomen does not materially increase the depth or rate of respiration. "The blood is fully aerated and has low tension of CO_2." In this symptom complex there has been demonstrated a considerable decrease of alkalinity of the blood and it is to this acidosis (non-volatile acids) that the symptoms are to be attributed.

Dr. Lewis' lectures are to be commended as stimulating and instructive both to those who are familiar with this new field of research and to those who feel the need of a b c instruction.

LEMANN.

America's Pressing Mortality Problem. By E. E. Rittenhouse, president Life Extension Institute, prepared and delivered at the Academy of Medicine, February 21, 1915.

The scope of this address is indicated in the subtitles. Numerous charts are given illustrating the fact that in America the death rate above forty is increasing while abroad (in normal times) it is stationary or falling. The fight against infant mortality has resulted in increasing the average length of life. More indivduals reach the adult age but according to the statistics here presented the expectation of life for a man of forty today is less than it was thirty years ago. Very great reductions are shown in the mortality from such diseases as tuberculosis and pneumonia but equally great increases are shown in the death rate from apoplexy, heart, kidney and liver disease. The thesis of the address is that this increased loss especially among males of gainful occupations is due to increased life strain, the strenuous life. "A better term is the intemperate life; that is, intemperate eating, drinking, working and playing." Attention is called to the extraordinary decline in activity in a very large portion of the population due to the introduction of time and labor saving devices—a decline which "reaches from the factory hand or the mechanic who leisurely watches or feeds a machine to the farmer who rides his sulky plow, to the trainmen whose brakes are now set by air." "To walk a few blocks, to stand a few minutes, or to climb a few stairs overtaxes the strength of thousands of healthy looking people—hence the popularity of the chair, the trolley and the elevator." This decline of activity has been accompanied by no decrease in eating; on the contrary we eat more and new and rich foods. This is the warning note sounded by the address—a warning note that must be heeded or the consequences will be disastrous. LEMANN.

Pathological Technique. Including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By F. B. Mallory, M. D., and J. H. Wright, M. D. Sixth edition, revised and enlarged. W. B. Saunders Company, Philadelphia and London, 1915.

The new edition is slightly larger than its predecessor, made necessary by the valuable laboratory knowledge published since 1911 and of facts not thought sufficiently tried out for incorporation earlier.

The volume is divided into three parts: Part I deals with autopsy technique and describes in minute detail the methods of post-mortem examination with descriptions and illustration of necessary instruments; a bibliography on post-mortem technique is an attractive ending to this section.

In Part II, which is made up of bacteriological methods, are con-

sidered all the essentials for the study of pathogenic bacteria and methods of identification. The individual organism is taken up separately and the peculiar characteristics which serve for its identification are brought out in a brief but clear manner. Illustrations of the morphology and cultural appearance of most of the organisms adds to the clearness of the descriptions. Certain of the non-pathogenic varieties frequently encountered in routine laboratory work are described and differentiated from those pathogenic organisms which they resemble in one or more characteristics.

Part III takes up Histological Methods. In a systematic manner the various steps in the technique of preparing tissue and pathological material for microscopic examination are accurately described and only those methods are given which the authors have by personal experiments proven satisfactory. These various steps begin with a description of the necessary equipment and extend in a logical sequence through the applications of special staining methods for the differentiation of the various tissue elements.

The latter pages of this part describe the several methods of applying the complement fixation test in the diagnosis of certain diseases, also the application of Lange's Colloidal Test for Syphilis of Cerebro-Spinal System.

This book is beyond doubt the best work of its kind published in the English language and no laboratory or laboratory worker can afford to be without it for reference and instruction.

JNO. A. LANFORD.

Infection and Immunity. A text-book of Immunology and Serology for Students and Practitioners. By Charles E. Simon. Third edition, revised and enlarged. Lea and Febiger. Philadelphia and New York, 1915.

This edition is further improvement upon the former popular editions. Dr. Simon has brought the book right up to date. Though former editions were intended to serve as a guide to further reading on the subject of Infection and Immunity, the present edition contains sufficient technical details that, as the author suggests, it might serve as a basis for a course of systematic instruction in Immunology in medical schools.

The chapter upon the Wassermann test for syphilis has been practically rewritten and such newer things as the Abderhalden test, the Schick test to determine immunity against diphtheria, the Ashurst and John method of treating tetanus, etc., have been included.

We take great pleasure in recommending the book to both students and practitioners who desire to be informed upon the important subject treated.

C. C. BASS.

Collected Studies from the Bureau of Laboratories, Department of Health, City of New York, Vol. VII, 1912-13. Wm. H. Park, Director.

This is a most valuable collection of the research work done by the staff of the New York Health Department. Many important original researches have been made, the results of some of which add materially to knowledge of the subjects studied. The articles are classified according to subjects as follows: applied therapy and preventive medicine; bacteriology; bio-chemistry; clinical cases with laboratory studies; food and drug chemistry; immunity; milk; clinical pathology; special pathology; physiology; protozoology. The volume consists of 463 pages and would be very valuable to anyone engaged in laboratory research as well as to others. We congratulate Dr. Park upon the work his department is doing.

BASS.

Progressive Medicine. A Quarterly Digest of Advances, etc., in the Medical and Surgical Services. Edited by Hobart Amory Hare, M. D., assisted by Leighton F. Appleman, M. D. Vol. xvii, No. 1. Lea and Febiger, Philadelphia and New York.

This number of Progressive Medicine is indeed a collection of a variety of material covering the ear, nose and throat, diseases of children, infectious diseases, and the surgery of the head, neck and thorax. A considerable share is given to the surgery of the hypophysis and is timely. The chapter on infectious diseases (by John Ruhrah) is unusually comprehensive and includes a number of rarer conditions, such as Ecthema infectiosum, Kalazar, Malta fever, paragonimiasis, etc. The review of other diseases, more commonly known, is also instructive and up to date. The other sections of this review are equally important and interesting, but it is obviously impossible to attempt any detail in submitting so large a field to our readers. It is sufficient to say that this number is an excellent one and offers a large amount of valuable information upon contemporary medical progress.

DYER.

Publications Received

WILLIAM WOOD & COMPANY. New York, 1915,

The International Medical Annual. 1915.

THE MACMILLAN COMPANY. New York, 1914.

The Cancer Problem, by William Seaman Bainbridge, A. M., Sc. D., M. D.

W. B. SAUNDERS COMPANY. Philadelphia and London, 1915.

Alveeolodental Pyorrhea, by Charles C. Bass, M. D., and Foster M. Johns, M. D.

THE YEAR BOOK PUBLISHERS. Chicago, 1915.

The Practical Medicine Series. Volume III: **The Eye, Ear, Nose and Throat.** Edited by Casey A. Wood, C. M., M. D., C. L.; Albert H. Andrews, M. D., and W. L. Ballenger, M. D.

PAUL B. HOEBER. New York, 1915.

Occupational Affections of the Skin, by R. Prosser White, M. D., M. R. C. S.

War Surgery, by Edward Delorine. Translated by H. DeMeric.

What Every Mother Should Know, by Charles Gilmore Kerley, M. D.

G. P. PUTNAM'S SONS. New York and London, 1915.

The Alligator and Its Allies, by Albert M. Reese, Ph. D.

LEA & FEBIGER. Philadelphia and London, 1915.

The Principles of Bacteriology, by A. C. Abbott, M. D. Ninth edition, thoroughly revised.

Modern Medicine, edited by Sir William Osler, M. D., F. R. S., and Thomas McCrae, M. D. Volume V: **Diseases of the Nervous System—Diseases of the Locomotor System.** Second edition, thoroughly revised.

WASHINGTON GOVERNMENT PRINTING OFFICE. Washington, D. C.

Public Health Reports. Volume 30, Nos. 23, 24, 25 and 26.

Clean Water and How to Get It on the Farm, by Robert W. Trullinger.

Nematodes and their Relationship, by N. A. Cobb.

Exercise and Health, by F. C. Smith.

United States Naval Medical Bulletin. July, 1915.

Report of the Department of Health of the Panama Canal for the Month of April, 1915.

MISCELLANEOUS:

Anti-Trust Acts of Louisiana. Baton Rouge, La., June, 1915.

Report of the State Live Stock Sanitary Board, by S. H. Gilliland, V. M., M. D. (N. Stanley Ray, State Printer, Harrisburg, Pa.)

The Lilly Scientific Bulletin. June 6, 1915.

Sixth Annual Report of the Committee for the Prevention of Blindness. State of New York, January 1, 1915.

The Institution Quarterly. Springfield, Ill., June 30, 1915.

Columbia University in the City of New York. The Alliance Between Columbia University and Presbyterian Hospital.

American Public Health Problems. (Prudential Press, Newark, N. J., 1915).

Address by the Hon. Elihu Root to the Union League of Philadelphia, March 23, 1915.

Reprints

Notes on the Michigan Species of Polygonatum, by Oliver Atkins Farwell.

Dementia Precox Studies, by A. S. Jutschenki.. Translated from the German with Notes and Subsequent Literature, by Bayard Holmes, B. S., M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans for June, 1915.

Cause.	White	Colored	Total
Typhoid Fever	6	4	10
Intermittent Fever (Malarial Cachexia)	....	2	2
Smallpox	2	2	4
Measles	....	....	....
Scarlet Fever	....	....	....
Whooping Cough	3	2	5
Diphtheria and Croup	1	.....	1
Influena	....	....	....
Cholera Nostras	....	....	....
Pyemia and Septicemia	....	....	....
Tuberculosis	30	65	95
Cancer	26	10	36
Rheumatism and Gout	....	....	....
Diabetes	1	2	3
Alcoholism	2	.....	2
Encephalitis and Meningitis	4	1	5
Locomotor Ataxia	2	.....	2
Congestion, Hemorrhage and Softening of Brain	25	10	35
Paralysis	3	4	7
Convulsions of Infancy	.....	1	1
Other Diseases of Infancy	10	6	16
Tetanus	1	.....	1
Other Nervous Diseases	5	1	6
Heart Diseases	34	36	70
Bronchitis	1	2	3
Pneumonia and Broncho-Pneumonia	13	26	39
Other Respiratory Diseases	4	.....	4
Ulcer of Stomach	1	.....	1
Other Diseases of the Stomach	1	3	4
Diarrhea, Dysentery and Enteritis	30	39	69
Hernia, Intestinal Obstruction	7	.....	7
Cirrhosis of Liver	10	5	15
Other Diseases of the Liver	1	2	3
Simple Peritonitis	....	2	2
Appendicitis	5	4	9
Bright's Disease	21	17	38
Other Genito-Urinary Diseases	10	9	19
Puerperal Diseases	8	1	9
Senile Debility	....	....	....
Suicide	2	1	3
Injuries	21	17	38
All Other Causes	39	22	61
Total	329	296	625

Still-born Children—White, 16; colored, 32. Total, 48.

Population of City (estimated)—White, 272,000; colored, 101,000. Total, 373,000.

Death Rate per 1000 per Annum for Month—White, 14.51; colored, 35.17. Total, 20.11. Non-residents excluded, 17.02.

METEOROLOGIC SUMMARY (U. S. Weather Bureau).

Mean atmospheric pressure.....29.97
Mean temperature .....84.
Total precipitation ..... 5.61 inches
Prevailing direction of wind, southwest.